Introduction

Chapter-I

1.1 Background of the study

Nepal is a land locked, geographically disadvantageously placed and economically vulnerable nation. It is one of the least developed among developing countries of the world. Its per capita income is estimated to be only about US $225 equivalent per year. As much as 42 percent of its total population lives below poverty line. In fact, it is suffering from the grim circumstances of underemployment, unemployment, low income, mass poverty and so on.

Agriculture, the largest primary industry of the world, is still the mainstay of the Nepalese economy. It is the most important sector both from the standpoint of number engaged in it as well as the income accruing from it. It alone contributes about 42 percent to gross domestic product, engages about 81 percent of economically active population and accounts for 47.5 percent of the merchandise exports. As a matter of fact, the economic development of the country depends to a great extent on its agricultural development. Realizing this fact, HMG/N has been laying top priorities on modernizing and developing agriculture right from the first five- year plan. Despite the top priorities being accorded to the development of this sector, no radical change is seen. This sector still remains a subsistence sector with low productivity leading to low income-low saving-low investment and so on. The main reasons for this are the complete dependence of agriculture on monsoon and unbearable population pressure on land caused by inadequate expansion of alternative industries in the country.

Under existing conditions, one of the major instruments of progress, modernization and social development of Nepal is to industrialize its economy. The industrialization is a process of economic development in which a growing part of the national resources is mobilized to develop a technically economic structure by dynamic manufacturing consumer goods assuring economic and social progress. It helps to create a country's economic infrastructure and gives a path for diversification into a new area of activity.

The process of industrialization started very late in the country, i.e. only after the second world war when a number of industries were established. The history of industrial development started with the establishment of Biratnagar Jute Mill in 1936 A.D. Most of the industries established so far in the country are under private sector. As the private sector was reluctant to establish large industries due to various constraints (i.e. requirement of huge investment, lack of skilled manpower & technical expertise and involvement of high risk), a few large-scale manufacturing enterprises were established primarily with foreign assistance in the public sector during the various plan periods. However during the last decade some public enterprises were liquidated some were

amalgamated and some were privatized. Some how or other some of them are still into operation.

The role which manufacturing industries play in the national economy is only marginal. The industrial sector contributes only about 10 percent to gross domestic product employs 2 percent of economically active population and accounts for 52.5 percent of the merchandise exports. This sector could not make the country self-sufficient even is consumer goods. Our country still depends largely on imports of manufactured goods not only for productive purposes but also for personal consumption. As the heavy dependence on imports of manufactured goods seriously damages the national economy, there is an urgent need on the part of the government to lessen such a heavy dependence on imports by reconstructing its own economy. The most effective way of reconstructing the national economy is the building up of dynamic industrial sector in the country. However, the top priorities should be accord to the basic industries saving the valuable foreign exchange and using the domestic resources.

The history of cigarette Industry in Nepal started with the establishment of Nepal Cigarette Factory at Birgunj in 1991 B.S. This factory was under private sector. Its authorized capital was Rs. 48 Lakh and production capacity was 300 million sticks per year, which was estimated to fulfill only about 9 percent of the demand for cigarette in the country. Due to different problems this factory has already been closed.

Nepal Tobacco Company was the second cigarette-manufacturing unit in the country. This company was also established under private sector. It was initially located at Kathmandu in 2017 B.S. and shifted from Kathmandu to Hetauda in 2025 B.S. with a view to localizing the industries in Hetauda industrial district. Its authorized capital was Rs.70 lakh and production capacity was 500 million sticks per year, which was expected to meet about 16 percent of the national demand for cigarette. Due to various problems this company has also been closed.

Janakpur Cigarette Factory, the third and largest cigarette manufacturing enterprise in the Kingdome of Nepal, was set-up at Janakpur in 2021 B.S. under the techno-financial assistance of Soviet Union. It is an undertaking of H.M.G. of Nepal. Its authorized capital is Rs. 8 crore and production capacity is 5 arab and 25 crore per annum which is expected to meet the national demand of cigarette in full. As a matter of fact, this factory made the country almost self-sufficient in cigarette production. Mention may be made that cigarette was the second highest item of import prior to the establishment of this factory. However, the average capacity utilization of the factory during the study period was 43 percent only.

Surya Tobacco Company, the fourth and last cigarette-manufacturing unit in the country, was established by Indian Tobacco Company, British Tobacco Company and Nepalese entrepreneurs as a private limited company. This company is located at Simra of Bara District. It started commercial production in 2043 B.S. Its annual production capacity is 3 arab sticks.

At present the cigarette industry in Nepal consists of only two units- Janakpur Cigarette Factory and Surya Tobacco Company- with a total installed production capacity of 8 arab and 25 crore sticks per annum. This industry has made the country self-sufficient in respect of cigarette production and occupies a significant place on the industrial scene. Its survival and growth largely depend on smooth and economical operation for which the adequate working capital is a must. It is because even the fate of large investment in its fixed assets is often determined by a relatively small amount of the working capital represented by current assets. As the working capital has strong bearing on financial performance and position of the industry, the periodical appraisal of its working capital position is absolutely essential. Such an appraisal of working capital position also reflects on the performance of working capital management of the industry concerning with the management of all aspects of the current assets and current liabilities. However, the present study attempts to appraise the performance of working capital management of cigarette industry in Nepal with special reference to Janakpur Cigarette Factory.

1.2 Need and Significance of the study

The cigarette industry is one of the major import substitution industries of Nepal. This industry meets the national demand for cigarette in full and thus gives a shoulder in improving the country's balance of payment situation by substituting the import of cigarette and saving the scarce and valuable foreign exchange. It contributes significantly to tax revenue and has provided employment opportunity for a large number of rural people. It has benefited many others in numerous ways. In order to ensure these fruits continuously, its efficient operation on proper management is absolutely essential. It is the appraisal of performance of management of the industry, which can give an indication as to whether or not it is managed properly. Out of the various functional areas of management of the industry, the financial is a key one. As the working capital management is one of the most important aspects of the financial management, the need and importance of this study cannot be over emphasized.

In particular, the study makes an evaluation of the short term financial position of JCF and indicates whether or not it is able to meet its current obligations as and when they fall due for payment. Such an identification assumes utmost importance to the short-term creditors and management for taking proper decisions.

Similarly, the study also measures the efficiency in use of current assets of the factory and indicates whether or no the investment in current assets has been utilized efficiently. Such an indication is of great significance to the management and investors for making suitable decisions.

Likewise, the study also analyses the sources and uses of funds of the factory to obtain an insight into the changes that have taken place in its financial position during the period of analysis. Such an insight is very helpful to the management and credit grantors for taking relevant decisions.

1.3 Statement of Problems

The cigarette industry in Nepal is constituted of two units- Janakpur Cigarette Factory and Surya Tobacco Company. The former is a public sector undertaking while the latter is a private one. The public sector undertakings of the country are either operating into losses or making minimal profits reflecting the inefficiency on the part of their management. There are various functional areas of the management- Production, Marketing, Finance, Personnel and so on. Though each of these functional areas calls for an in-depth probe for ameliorating the performance of the undertaking, the present study looks into the working capital management of JCF, which is one of the most important facts of the financial management. In particular, the efforts have been concentrated on finding out the answers to the following questions:-

(a) What are the major factors determining the working capital condition of the factory?
(b) What are the major components of current assets of the factory?
(c) What is the size of investment in each type of current assets of the factory?
(d) Is there an adequate investment in each type of current assets of the factory?
(e) Is there an efficient utilization of investment in current assets of the factory?
(f) What are the sources of financing of current assets of the factory?
(g) What are the effects of working capital on profitability of the factory?

1.4 Objectives of the Study

The main objective of this study is to evaluate the performance of management of working of JCF.

(a) To assess the working capital condition of the factory.
(b) To measure the efficiency of management in utilization of inventory.
(c) To appraise the efficiency of management in utilization of account receivables.
(d) To measure the efficiency of management in the use of cash.
(e) To evaluate the financing pattern of working capital of the factory.
(f) To examine the effects of working capital on profitability of the factory.
(g) To present and analyze the sources and uses of funds of the factory. and
(h) To suggest remedial measures wherever found necessary.

1.5 Limitations of the study

The present study has been made for partial fulfillment of the requirement for the degree of Master of Business Studies. However, it has a number of uses for the factory management, creditors and owners. The users of this study must be aware of the limitations from which it suffers. Its main limitations are listed below:-

(a) Though, the cigarette industry in Nepal is constituted of two units- JCF and STC, the present study has been confined to the former unit only due to the denial of concerned authority of latter unit to provide relevant information.

(b) Although, the overall performance of management of JCF needs to be evaluated, the study in view of time, cost and academic level has been restricted to the performance of Wording capital management.

(c) The study has made generalization about the performance of working capital management of the factory on the basis of data covered by the period of study from 2050/51 to 2059/60 only.

(d) It would be much better to compare the actual ratios of the factory with those of the industry to which it belongs. But because of the non- availability of required data such comparison has been made with absolute and historical standards for drawing inferences.

(e) The reliability of findings of the study largely depends upon the correctness of the data and information made available by the factory.

Chapter- II

Review of Literature:-

In the previous chapter, a general introduction of the cigarette industry in Nepal was given. This chapter reviews the available literature on the subject concerned. It is subdivided into three sections. The first section deals with the conceptual framework of working capital management. The second section reviews the relevant articles and studies while the related theses submitted for University degrees, are reviewed in the third section.

2.1 Conceptual Framework:-

In this section at attempt has been made to form a sound theoretical background for the study. It covers meaning and concept of working capital, classification of working capital, need for working capital, working capital policy, financing of working capital, determinants of working capital, and techniques of working capital analysis.

2.1.1 Meaning and concept of Working Capital:-

Business firms need various types of assets in order to carry out its operation. Some assets are required to meet the needs of regular productions and some others are required especially to meet day to day expenses and short term obligations. The assets such as cash, marketable securities, accounts receivables and inventories, which are known as current assets, are required to be maintained at certain level depending upon the volume of production and sales.

Working capital is a furnish investment in short term assets.[1] Working capital is a firm's investment in short term assets-cash, short term securities, account receivable and inventories.[2]

The cash and marketable securities are respectively considered as purely liquid and near liquid assets where as the accounts receivable and inventories are not. However they can be liquidated as and when necessary within a period of less than one year. In short, WC is the source of financing current assets and it includes short as well as long term financing.[3]

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

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1. J. Fred Weston. ***Managerial Finance*** (Illinois: The Dryden press Hinsdale. 1981) pg.137
2. J.F.Weston and E.F. Brigham. ***Managerial Finance*** (Illinois: The Dryden press. 1984) pg.266
3. Surendra Pradhan, ***Basis of Financial Management***, 2nd edition (kathmandu: Educational Enterprises Pvt. Ltd.,2000) pg. 139

Therefore, the role of working capital management is more significant for every business organization irrespective of their nature. There are two concepts of working capital i.e. Gross concept and net concept.

a) Gross Concept: - It refers to the firm's investment in current assets i.e. cash, marketable securities inventory and accounts receivable.

b) Net Concept:- It can be defined in two ways,

(i) Most common definition of the working capital is the difference between current assets and current liabilities.

(ii) The alternative definition is that portion of a firm's current assets which is financed with long term funds.[4]

According to the net concept, Working capital refers to the difference between current assets and current liabilities. In other words, it is the part of current assets financed with long term funds. It focuses on the liquidity position of the firm and suggests extending which working capital need to be financed by permanent sources of funds. It is not very useful to compare the performance of different firms as a measure of liquidity, but it is quite useful for internal control. This concept helps to compare the liquidity of the same firm over a time.[5]

According to the gross concept, we refer to the capital invested in current assets of a firm. It focuses only the optimum investment on current assets and financing of current assets.[6] It includes cash, short term securities, inventory and accounts receivables. The level of current assets may be fluctuating with the changing business activity. Thus, this concept can help earning more profit through maximum utilization of current assets. This concept is called quantitative concept.

WC management is the effective lifeblood of any business. Hence the management of working capital plays a vital role for existence of any public enterprises successfully. It is the center of the routine day-to-day administration of current assets and current liabilities. Therefore WC management in public enterprises is very important mainly for four reasons.

Firstly, public enterprises must determine the adequacy of investment in current assets otherwise it could seriously erode their liquidity base. Secondly, they must select the type of current assets suitable for investment so as to raise their operational efficiency. Thirdly, they are required to ascertain the turnover of current assets, which determine the profitability of the concerns. Lastly, they must find out the appropriate sources of funds to finance the current assets.

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4. L.J. Gitman, ***Principles of Managerial Finance***, 5th edition (New York: Harper Collins Publishers, 1988) pg. 473
5. Khan and Jain, ***Financial Management: Text and problems***, 3rd edition (New Delhi, TATA MCGRAW HILL, 1999) pg. 604
6. Radhe Shyam Pradhan, ***Management of Working Capital*** (New Delhi, National Book Organization,1986) pg. 119

Proper management of working capital must ensure adequate amount of working capital as per working capital as per need of business firms. It should be in good health and efficiently circulated. To have adequate, healthy and efficient circulation of working capital, it is necessary that working capital be properly determined and allocated to its various segments, efficiently controlled and regularly reviewed. In the opinion of well-known Indian professor I.M. Pandey, there are specially two concepts of working capital i.e. gross concept and net concept. The term net working capital refers to the difference between current assets and current liabilities. Current liabilities are those claims of outsiders, which are expected to mature for payment within an accounting year and include creditors, bills payable, bank overdraft and outstanding expenses. Net working capital arises when current assets exceed current liabilities. A negative WC occurs when current liabilities are in excess of current assets[7].

2.1.2 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 on a continuous basis over the entire year. A manufacturing concern cannot operate regular production and sales functions in the absence of this portion of working capital.

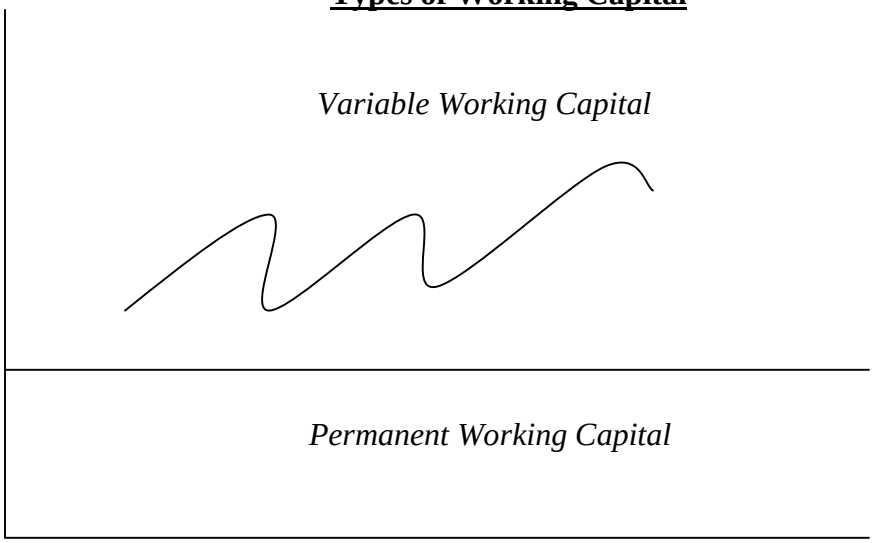
Therefore, a manufacturing concern holds certain minimum amount of working capital to ensure uninterrupted production and sales functions. This portion of working capital is directly related to the firm's expansion of operation capacity.[8]

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 labour and management. Fig.1 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 competitors in the cutthroat of the market.

7. I.M Pandey, ***Financial management***
8. R.M. Srivastav, ***Financial Decision Making:*** *Text, problems and cases.*(New Delhi Sterling publishers Pvt. Ltd, 1984) pg.48

Fig. 1
Types of Working Capital



Adopted From:- I.M. Pandey , ***Financial Management***, pg. 808

2.1.3 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 objectives. 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.[9]

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 other words, necessary for earning profit by any business extremes. However, sale does not convert into cash instantly; there is invariably a time lag between the sales of goods and receipt of cash

9.HiramaniGhimire, ***"Working Capital position a Arinata Multi-Fibres Ltd."***
(Unpublished Master Degree thesis, post graduate, Biratnagar Campus T.U.2002) pg. 20
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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, after the conversion of resources into inventories into cash."[10]

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 need to hold the working capital components like cash, receivable, inventories etc. Therefore, every firm needs working capital to meet the following motives:-

A) THE TRANSACTION MOTIVE:- According to transaction 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 need to hold cash & 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 accounts 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 on payment of immediate cash.
iii. Speculate on interest rate and
iv. Make purchases at favorable price etc.

Thus, the firms need the working capital to meet the above four motives.

2.1.4 WORKING CAPITAL POLICY:-

A firm's net working capital position is not only important as an index of liquidity but it is also used as a measure of the firm's risk. Risk, in this regard, means chances of the firm being unable to meet its obligations on due date.[11] Working capital management involves deciding upon the amount and composition of current assets and how to finance these assets.

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

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10. I.M. Pandey. Pg.731
11. I.M. Pandey. Pg.738

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

Working capital policy refers to the firm's basic policies regarding target level of each category of current asset and how current assets will be financed.[12] So, first of all, the firm has to determine how much funds should be invested in working capital in gross concept. Every firm can adopt different financing policy according to the financial manager's attitude towards the risk return trade off. One of the most important decisions of final manager is how much current liabilities should be used to finance current assets. Every firm has to find out the different sources of funds for working capital.

2.1.4.1 CURRENT ASSETS INVESTMENT POLICY:-

Current assets investment policy refers to the policy regarding the total amount of current assets to be carried to support the given level of sales. There are three alternative current assets investment policies- fat cat, lean & moderate.[13]

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

B) LEAN AND MEAN POLICY:- In lean & mean policy, a firm holds the minimum amount of cash, marketable securities, inventory and receivable to support a given level of sales. This policy tends to reduce the inventory and receivable conversion cycle. Under this policy firm allows a fight credit policy and bears the risk of losing sales.

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

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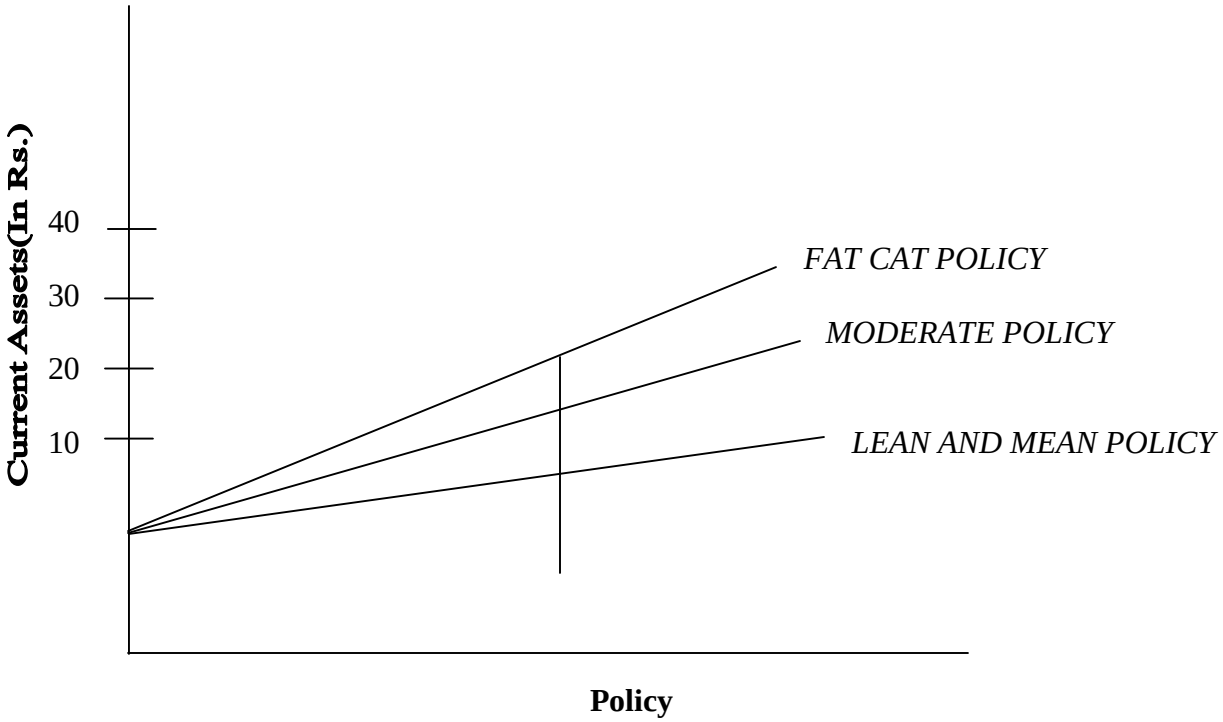
12. J. Fred Weston, Scott Besley and Engence F. Bringham, ***Essentials of Managerial Finance.*** 11th edition (The dreyden press, 1996) pg. 333

13. Weston, Besley and Brigham, pg. 334

Fig. 2

Alternative Current Assets Investment Policy



Adopted From: Weston, Besley & Brigam, ***Essentials of Managerial Finance***, pg. 345

2.1.4.2 CURRENT ASSETS FINANCING POLICY:-

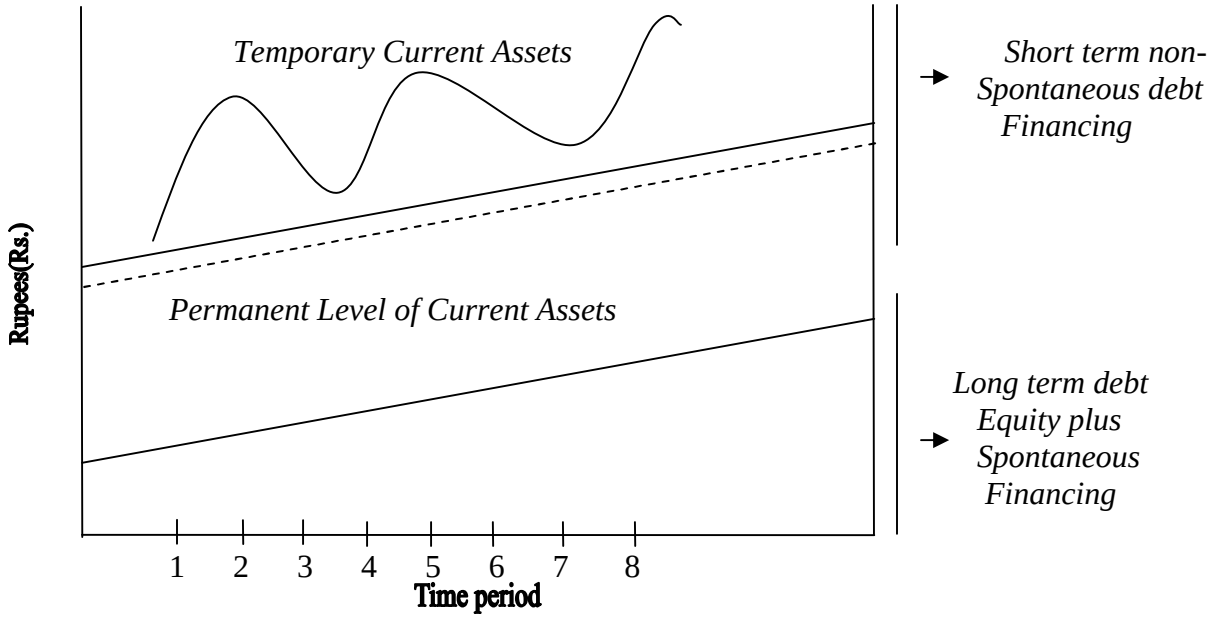
It is the manners in which the permanent and temporary current assets are financed with funds raised from different sources. But cost and risk affect the financing of any assets. Thus, current assets financing policy should clearly outline the sources of financing. There are three variants aggressive,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

A) AGGRESSIVE POLICY:- In an aggressive policy, the firm finances a part of its permanent current assets with short term financing and rest with long term financing. In other words, the firm finances not only temporary current assets but also a part of permanent current assets with short term financing. Fig. 3 shows that short term financing finance 50% of the permanent current assets.

In general, interest rate increases with time i.e. shorter the time, lower the interest rate. It is because lenders are risk adverse and risk generally increases with the length of lending period. Thus, under financing rather than long term financing on the other side, if the firm finances its permanent current assets by short term financing, then it runs the risk of renewing the borrowing again and again. This continued financing exposes the firm to certain risk. It is because, in future the expenses will fluctuate wide and also, it may be difficult for the firm to raise the fund during the stringent periods. In conclusion, there is higher risk, higher return and low liquidity position under this policy.

Fig. 3

AGGRESSIVE FINANCING POLICY

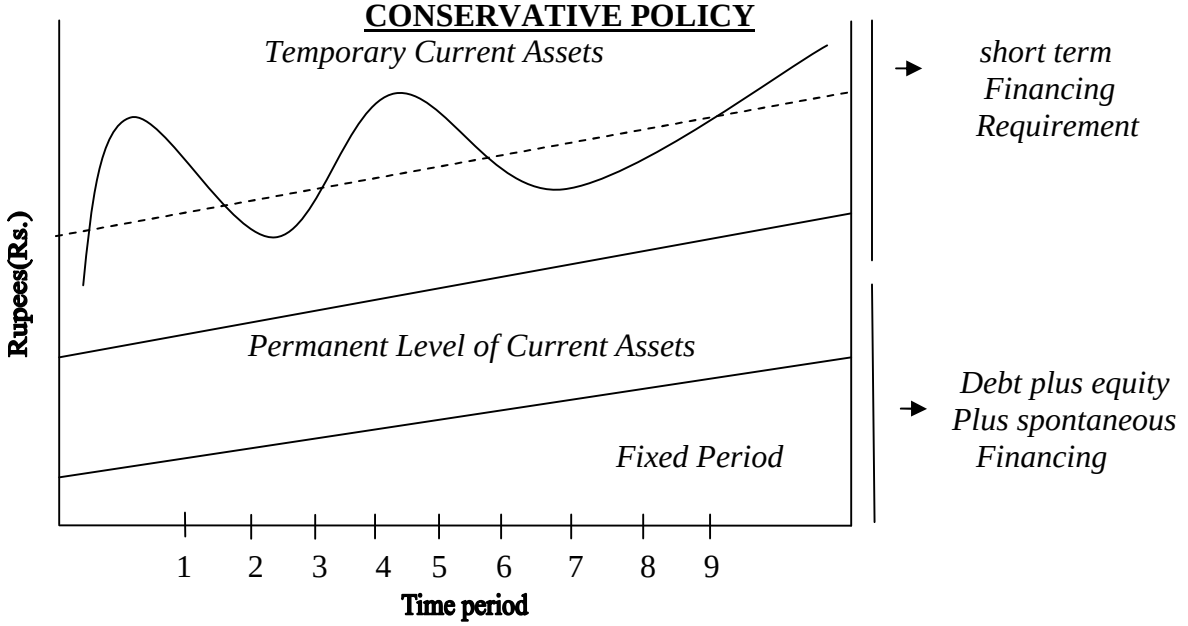


Adopted from: Weston, Besley and Brigham, ***Essentials of Management Finance***, pg. 347

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

Fig. 4

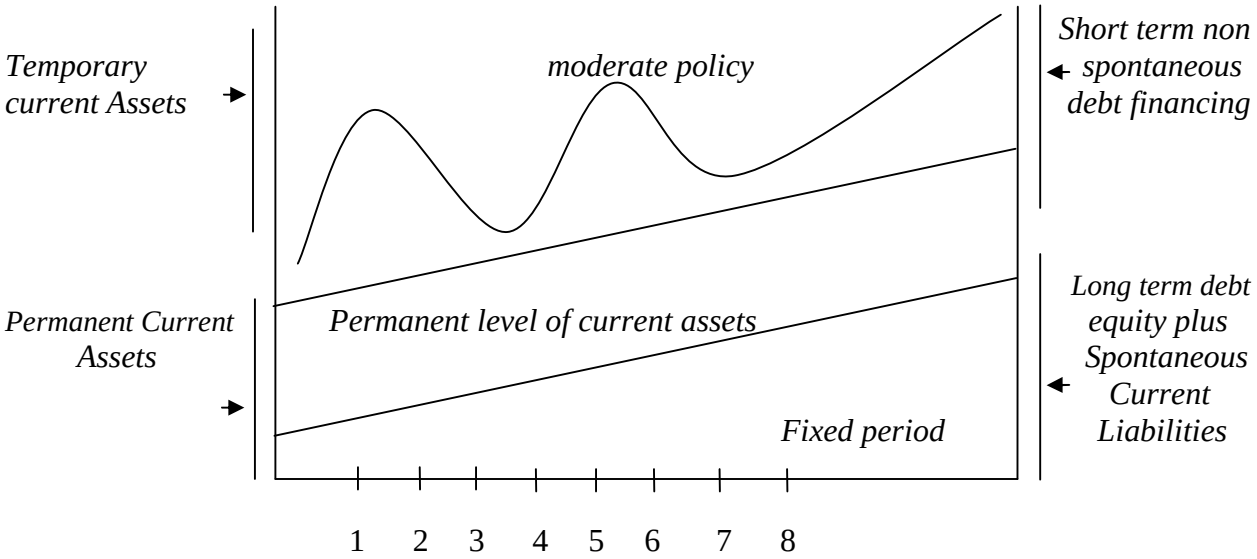
CONSERVATIVE POLICY



Adopted from: Weston, Besley and Brigham, ***Essentials of Management Finance*** (pg. 347)

C) MODERATE POLICY:- In this policy the firm finances the permanent current assets with long term financing and temporary with short term financing. It lies in between the aggressive and conservative policies. It leads to neither high nor low level of current assets and current liabilities. Fig. 5 shows temporary working capital is financed by short term financing and long term financing. Thus work capital is zero under this policy.

Fig. 5
MODERATE POLICY



Adopted from: Weston, Besley and Brigham, ***Essentials of management finance*** (pg. 347)

2.1.5 FINANCING OF WORKING CAPITAL:-

The firm's working capital assets policy is never set in vacuum; it is always established in conjunction with the firm's working capital financing policy. Every manufacturing concern or industry requires additional assets whether they are in stable or growing conditions. The most important function of financial manager is to determine the level of working capital and to decide how it to be financed. Financing of any assets is concerned with two major factors- cost and risk. Therefore, the financial management must determine an appropriate financing mix, or decide how current liabilities should be used to finance current assets. However, a number of financing mixes are available to the financial manager. He can resort generally three kinds of financing.

A) LONG TERM FINANCING:- Long term financing has high quality and low profitability. Ordinary share, debenture preference share, retained earning and long-term debts of financial institution are major sources of long term financing.

B) SHORT TERM FINANCING:- A firm must arrange its short-term credit in advance. The sources of short-term financing of working capital are trade credit and bank borrowing.

I) Trade Credit:- It refers to the credit that a customer gets from suppliers of goods in the normal course of business. The buying firms have not to pay cash immediate for the purchase is called trade credit. It is mostly an informal arrangement and is granted on an open account basis. Another form of trade credit is bills payable. It depends upon the term of trade credit.[14]

II) Bank Credit:- Bank credit is the primary institution sources for working capital financing. For the purpose of bank credit, amount of working capital requirement has to be estimated by the borrowers and banks are approached with the necessary supporting data.

After availability of this data, bank determines the maximum credit based on the margin requirement of the security. The types of loan provided by commercial banks are loan arrangement overdraft arrangement, commercial papers etc.

C. SPONTANEOUS FINANCING: - Spontaneous financing arises from the normal operating of the firms. The two major sources of such financing are trade credit (i.e. credit and bills payable) and accruals. Whether trade credit is free of cost or not actually depends upon the terms of trade credit.[15]

Financing manager of the firm would like to finance its working capital with spontaneous Sources as much as possible. In practice, the real choice of current assets financing is either short- Term or long – term sources. Thus, versus long term financing. Hence, the financing of working capital depends upon the working capital policy, which is perfectly dominated by management attitude towards the risk return.

There are three basic approaches for determining an appropriate working capital financing mix:

i) Hedging Approach:- If the firm attempts to match asset and liability maturities, the working capital financing policy is termed as moderate (maturity matching of self liquidity) policy. Hedging approach is a method of financing where each asset would be offset with a financing instrument of the same approximate maturity.

"With a hedging approach short- term or seasonal variations in current assets would be financed with short- term debt; the permanent component of current assets and all fixed assets would be financed with long term debt or with equity. With a hedging approach to finance the borrowing and payment schedule for short – term financing current assets less spontaneous financing." [16]

Here, as the level of permanent current assets increases, the long term financing level also increases similarly, as the level of temporary or variable current assets increases, the level or

14. James C. Van Horne, ***Financial Management and Policy*** (New Delhi: Prentice Hall of India Pvt. Ltd. 1994) pg. 471
15. Surendra Pradhan. Pg. 147
16. James C. Van Horne and J.M. Wachowics, ***Fundamentals of Financial Management***, 10th edition (New Delhi: Prentice Hall of India Pvt. Ltd., Thirteenth printing 2000) pg. 209

Short-term financing also increases. However, due to the uncertainty of expected lives of assets exact matching is not always possible.

ii) Conservative Approach:- The financing policy of firm is said to be conservative when it depends more on long term funds for financing needs under a conservative plan the firm finances its permanent assets and also part of temporary current assets, with long term finance. In the periods when the firm has no need for temporary current assets the idle long term funds can be invested in the tradable securities to conserve liquidity. [17]

This approach raise heavily on long term financing, as a result firm has possibility of financing, the problems of shortage of funds. In conservative approach, permanent capital is used to finance all permanent assets requirements or also to meet some or all of the seasonal demands.[18]

iii) Aggressive Approach: - A firm can follow aggressive policy in financing its assets under an aggressive policy; the firm finances a part of its permanent current assets with short- term financing. The relatively more use of short- term financing makes the firm more riskey.[19]

The greater the portion of the permanent assets need financed with short- term debt, the more aggressive the financing is said to be.[20]

2.1.6 DETERMINANTS OF WORKINGS CAPITAL:-

There are no set rules or formulate to determine the working capital requirement of the firm. The importance of efficient working capital management is an aspect of overall financial management. Thus a firm plans its operations with adequate WC requirement or it should have neither too excess nor too inadequate working capital. A number of factors affect different firm in different ways. Internal policies and environment changes also affect the working capital. Generally the following factors affect the working capital of the firm.

i) Nature and size of business:- The working capital requirement of a firm depends upon the nature and size of business. If the size of the firm is bigger, then it requires more working capital, while small firm require larger amount of working capital relatively to public utilities.

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

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17. I.M. Pandey. Pg. 750
18. Weston and Brigham, ***Essentials of Managerial Finance***, 11th edition (New York, the Dryden Press, 1996) pg. 348
19. I.M. Pandey pg. 751
20. Van Horne and Wachowicz pg. 212

iii) **Production Policy: -** Working capital requirement is also determined by its production policy. If a firm produces seasonal goods, then its production and sales volume fluctuate with different seasons. This policy of fluctuating policy affects the working capital policy of the firm.

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

v) **Availability of Credit:-** Availability of credit facilities is another factor that affects the working capital requirement. If the creditors avail a liberal credit terms, then the firm will need less working capital and vice versa. In other words, the firm can get credit facility easily on favorable conditions. Thus, it requires less working capital to run the firm otherwise more working capital is required to operate the firm smoothly.

vi) **Growth and expansion:-** Growth and expansion also affect the working capital requirement of firm. However, it is difficult to precisely determine the relationship between the growth and expansion of the firm and working capital needs. But the other things being the same growing firm needs more working capital than those static ones.

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

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

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

viii) **Level of taxes:-** The level of taxes also influences working capital requirement of a firm. The amount of taxes to be paid in advances is determined by the prevailing tax regulations. But the firm's profit is not constant, or can't be predetermined. Tax liability in a sense of short- term liquidity is payable in cash. Therefore, the provision for tax amount is one of the important aspects of working capital planning. If tax liability increases, it needs to increase

the working capital and vice versa.

2.1.7 TECHNIQUES OF WORKING CAPITAL ANALYSIS:-

There are various techniques of working capital analysis. They are as follows:

2.1.7.1 RATIO ANALYSIS:-

Ratio analysis has been the major tool used in the interpretation and evaluation of financial statements.[21] The literature on financial statement analysis has discussed continuously the use of ratio analysis. Besides this, the accounting and finance text books which can be expected to report the more important analysis techniques in chapters on external analysis of financial statements also emphasize the use of ratio analysis.[22]

Ratio analysis is the principal technique used in judging the condition portrayed by the financial statements. By using this technique, the analysis can judge the financial growth and development and the present condition of a business enterprise.[23]

A ratio is simply one number expressed in terms of another. It is found by dividing one number, the base into the other. A percentage is also a kind of ratio in which the base is taken as equaling 100 and the quotient is expressed as per hundred of the base.[24]

Ratios are simply a means of highlighting in arithmetical terms the relationship between figures drawn from financial statement.[25] In the words of J. Batty the term 'accounting ratios' is used to describe significant relationship which exist between figures shown on a balance sheet, in a profit and loss account, in budgetary organization.[26]

The technique of ratio analysis is getting wider acceptance in accounting and mathematical world. In this regard Mr. Herfert states that the ratio analysis provides guides and clues especially in spotting trends towards better or poor performance, and in finding out significant deviation from any average or relatively applicable standard.[27]

There are two schemes of expressing relationship in ratios. The first one is the 'phrase method', such as, two for one and the second one is the 'percentage method', such as, 200 percent etc. the percentage scheme has the advantage of greater precision because it may develop facts which will be easily remembered.[28]

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21. Baruch Lev. ***Op.Cit***. , pg. 11
22. Melvin C.O. conner, ***"On usefulness of Financial Ratios," Accounting Review,*** Vol. XL VIII, No. 2, April 1973, pg. 339
23. N.P. Agrawal, ***Op.Cit***, pg. 9
24. Rober N. Anthony, ***Management Accounting, Text & Cases***, Richard D. Irwin., Inc., Homewood Illionis, 1964, pg. 297
25. Hunt, Williams and Donaldson, ***Op.Cit.*** , pg. 141.
26. J. Batty, ***Management Accountancy***, Maddonald and Evans Ltd., London, 1963, pg. 374
27. Erich A. Helfert, ***Techniques of Financial Analysis***, Richard D. Irwin, Inc., Homewood, Illionis. 1957, pg. 57.
28. N.P. Agrawal, ***Op.Cit.***, pg. 10

Although ratio analysis is widely in use but it should be remembered that one ratio cannot give the entire picture.

In fact the ratios tend to give simply an indication which assists considerably in appraisal of the financial position and operations of the organization.[29] Ratios by themselves are not conclusions. Therefore it should always be kept in mind that ratios are only guides in analysis of financial statements and not conclusive ends in themselves.[30] Further, if ratio is to be important, it must also aid the analyst in making his immediate decision.[31]

Financial ratios may be classified by the source of data as follows; [32]

1. Balance sheet Ratios.
2. Income statement ratios.
3. Fund statement ratios.
4. Mixed ratios.

The above classification seems to be rather crude because it leads one to think that analysis of the income statement or the balance sheet can be attempted in isolation.[33]

FUNCTIONAL CLASSIFICATION / CLSSIFICATION ACCORDING TO TESTS:-

This classification is based on certain tests, which the ratios are intended to serve. It can also be classified according to the different economic aspects of the firm's operations:[34]

According to this classification, the various ratios have grouped as follows:-

(a) Liquidity ratio:-

These ratios measure the liquid position of a business enterprise and thereby indicate whether or not the enterprise is able to meet its current obligations as and when they fall due for payment. The main liquid ratios are:

i) Current ratio
ii) Liquid (Acid Test/ Quick) Ratio
iii) Absolute Liquidity Ratio
iv) Debtors Turnover Ratio
v) Creditors Turnover Ratio
vi) Inventory Turnover Ratio

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29. Narold Bierman, ***Financial Accounting Theory***, The MacMillian Company, New York, 1965, pg. 225
30. S. Winton Korn & Thomas Boyd, ***Accounting for Management Planning & Decision Making*** ,John Widely & Sons, Inc., New York, 1969, pg. 143
31. ***Ibid***, pg. 173
32. Maruch Lev, ***Op.Cit***., pp. 11-12
33. N.L. Hingorani and A.R. Ramanathan, ***Management Accounting***, Sultanchand & Sons, Delhi, 1973, pg. 92
34. Baruch Lev., ***Op.Cit***., pg. 12

(b) Leverage and Long-term Solvency Ratio:-

These ratios measure the long-term financial position of a business enterprise and indicate the contribution of financing by owners as compared to financing by outsiders. The main leverage and long-term solvency ratios are:

i) Debt-equity Ratio
ii) Debt to Total Capital Ratio
iii) Interest Coverage Ratio
iv) Cash Flow Debt Service Ratio
v) Capital Gearing.

(c) Activity Ratio:-

These ratios measure the efficiency with which the resources of a business enterprise have been employed and thus indicate the speed with which key assets are being turned over into sales. The main activity ratios are:

i) Inventory Turnover Ratio
ii) Debtors Turnover Ratio
iii) Fixed Assets Turnover Ratio
iv) Total Assets Turnover Ratio
v) Working Capital Turnover Ratio
vi) Payable Turnover Ratio
vii) Capital employed Turnover Ratio

(d) Profitability Ratios:-

These ratios measure the performance and effectiveness of a business enterprise. The main profitability ratios are:

(I) In relation to investments:

(i) Return on Investment
(ii) Return on Capital Employed
(iii) Return on Equity Capital
(iv) Return on Total Resources
(v) Earning per Share
(vi) Price-Earning Ratio

(II) In relation to sales:

i) Gross profit Ratio
ii) Operating Ratio
iii) Operating Profit Ratio
iv) Net Profit Ratio
v) Expense Ratio

This classification is virtually oriented to the needs of owners, investors and leaders.

Naturally, some ratios are more important then others though the conclusions derived from them may have to be read together for getting an idea about the financial position of the firm. This basis of classification of ratios has been recommended by the British Institute of Management for inter-firm comparisons and following categories of ratios have been suggested by the institute:[35]

(a) Primary Ratios: - As the principal motivating force for any commercial undertaking is profit, success is measured by the size of profit in relation to capital employed and this has been termed as 'primary ratio'.

(b) Secondary Ratios:- This basis of classification being primarily from the point of view of inter-firm comparisons. If the earning power of a unit as depicted by the primary ratio does not at least equal that of other similar concerns, there are probably some factors or combinations of factors, which does not permit a business to be operated efficiently. Such factors may be isolated by means of other types of ratios, referred to as 'secondary ratios' which are further divided into following sub classes:

(i) Supporting Ratios.
(ii) General Explanatory Ratios.
(iii) Specific Explanatory Ratios.

In fact there are various items appearing at profit and loss account and balance sheet. The scope for comparing one item with another is enormous and so it is important to be selective. This limits the calculations and makes the presentations of selected ratios simple and readily understandable. No decision maker wants a jungle of figures and so the ratios chosen should be the key ones, logically grouped. The ratios have logically been classified into three main groups[36]

(i) Operating Ratios, which are concerned with how the company is trading, and take no account of the company is financed.

(ii) Financial ratios, which measure the financial structure of the company and show how it relates to the trading activities.

(iii) Investment ratios, which relate to the number of ordinary shares and their market price to the profits, dividends, and assets of the company.

Almost every ratio is useful but no ratio alone can satisfy the needs of all the parties and so the selection of a ratio depends upon the needs of the party for which analysis is being undertaken.

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35. Man Mohan & S. N. Goyal, ***Principles of Management Accounting***, Sahitya Bhawan, Agra, 1982, pg. 385-86

36. Geoffery Holmes & Alan sugden, ***Interpreting Company Reports and Accounts***, wood Lead – Feulkner, Cambridge, 1979, pg. 166

ANALYSIS OF SHORT-TERM FINANCIAL POSITION (LIQUIDITY)

Liquidity means ability of a business enterprise to pay its current obligations as and when they fall due for payment. Thus liquidity ratios intend to derive a picture of the capacity of a firm to meet its short-term obligations out of its short-term resources. In recent time, a core of liquidity ratios have emerged, which when viewed in their totally and with respect to risk, is expected to yield a rough approximation of the capacity of business to pay its current liabilities as and when they fall due for payment.[37]

The working capital ratio, which reflects the relation of current assets to current debts, is indicative of the degree of safety with which short-term credit may be extended. Even if a little shrinkage in current assets takes place, this will not too greatly jeopardize the interest of the current creditors.[38] Hence, the short-term creditors (Whether present or potential) of a business enterprise are mainly concerned with the working capital ratio in order to justify the granting of loans.

CURRENT RATIO:-

Current ratio is used as in index of liquidity by creditors and other interested individuals or associations.[39] Current ratio, also called working capital ratio, reflects the relation of current assets of the firm to its current liabilities. It is the most widely used of all devices.[40]

Formulation:

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

American institute of certified public accounts defines current assets as cash and other assets reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of business and which involve a circulation of assets with the current assets group.[41]

The current liabilities include sundry creditors, bills payable, outstanding and accrued expenses, income tax payable.[42] For the purpose of measuring the liquidity, the long- term debt maturing during current accounting year should also be included.

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37. Man Mohan & S.N. Goyal, ***Op.Cit***., pg. 384
38. H.A. Finney & H.E. Miller, ***Principles of Accounting***, Prentice- Hall, Inc., New York, 1954, pg. 172
39. A.W Willsmone, ***Accounting for Management Control***, Pitman publishing press, Great Britain, 1971, pg. 94
40. Man Mohan & S.N. Goyal, ***Op.Cit***., pg. 387
41. Arthur W. Holmes, ***Elementary Accounting***, Richard D. Irwin, Inc. Home wood Illionis, 1962, pg. 388
42. Man Mohan & S.N. Goyal, ***Op.Cit***., pg. 388

According to Mr. Sharma, all the liabilities, which have to be met during the course of the financial year, should be kept under the heading 'current liabilities' and all the assets which can be realized in cash during the course of financial year in order to meet the current liabilities, should be kept under the heading 'current assets'. Thus if a long-term loan is to be repaid within the financial year, it should be taken as current liability. Under the heading of current assets stores and spare parts and loose tools are being shown, but these would not be converted into cash and as such would not be available for meeting the current liabilities.[43]

In the word of Mr. Sharma "an examination of the current ratio of a company on the basis of the facts available on the face of the balance sheet is like an attempt to walk on eggs.[44] It is because the major purpose of calculating the current ratio is to test the liquidity position of the company. It should always be considered that the current assets are used to meet current liabilities. The current ratio of a healthy company should be more than one.

After a detailed study and research, it was found that the current ratio would differ from business to business and from industry to industry. Thus, over the years the practical standard of the ratio of current assets to current liabilities has come to be recognized as 'two for one' for industrial and commercial business concerns.[45] After all, one cannot be dogmatic about the maintenance of the current ratio because there could be circumstances which could give strength to the credit worthiness of the company in spite of fact that the current ratio is less than two for one.

Any considered shifts from the relatively more current assets to the relatively less current assets materially affect the ability of a company to pay its current debts promptly. So it is desirable to break down the working capital in a manner (finished goods, goods in process, materials) which shows whether the current liabilities can be paid from the cash on hand or whether their payment requires all of the cash and part of the proceeds of finished goods and so on.[46]

Inventories constitute a major portion of current assets, which are relatively much less current than cash and receivables. Inventories include materials, work in process and then involve the uncertain factor of the market ability.[47] Because of these reasons, many analysts recommended 'acid test ratio' or 'quick current ratio' in addition to current ratio for the test of liquidity. In the word of Bhandari & Kulshrestha 'if the executive is anxious to know whether the business is in a sufficiently liquid position he will find the answer by studying the current ratio and the quick ratio for the period.[48]

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43. Lajpatrai Sharma, " Liquidity of public sector", ***Journal of the Institute of the Chartered Accountants of India***, Vo. XV, part IX, March 1967, pg 560
44. ***Ibid***, pg 561
45. ***Ibid***, pg 559
46. H.A. Finney & H.E. Miller, ***Principles of Accounting***, Bhantice- hall Inc, Eaglewood, ciffs, Jersey, 1965, pg. 417
47. ***Ibid***, pg 172
48. Dr. S.K.R. Bhandari & H.J. Kulshrestha, Essay in Accounting, Sahitya Bhawan, Agra, 1964, pg. 72

The quick ratio of quick assets –cash, marketable securities held as temporary investment and receivables –to current liabilities. It includes or near cash, or soon cash assets that will be available in the immediate future for payment of its short-term obligation [49] thus quick assets reflect the relationship between quick assets and current liabilities for the justification of liquidity.

Acid test ratio or quick ratio can be calculated by any of the following ways: [50]

$$\text{Acid Test Ratio or Quick Ratio} = \frac{\text{Liquid or Quick Assets}}{\text{Liquid or Quick Liabilities}}$$

This shows the relation of quick assets to quick liabilities. But if one is interested to find out the relation of quick assets to current liabilities then the formula is:

$$\text{Acid Test Ratio} = \frac{\text{Liquid or Quick Assets}}{\text{Current Liabilities}}$$

In the early years, the quick ratio of one to one was popular. It was considered as a dividing line between a satisfactory and an unsatisfactory short-term position. But the current tendency is to de-emphasize any given ratio for business as a whole and to ask instead what the typical quick ratio is for a specific trade or industy.[51] In the absence of comparative data, an acid test ratio of one to one may be considered satisfactory because other things remaining the same, one rupee of assets is sufficient to discharge one rupee of liability.

There are two main defects of quick ratio. First, it tells how much current assets are available to pay current liabilities but it does not tell how soon the current assets will be available or how soon the current liabilities will have to be paid.[52] Thus, whether there is balanced condition between current assets and current liabilities of the company cannot be judged only through the current ratio and the acid test ratio and in isolation of other factors. The ability of current and quick ratio to indicate short term debt paying ability depends on how rapidly inventory and receivables can be converted eventually into cash. As a result, the two supplementary ratios should be completed, i.e., turnover of receivables and inventory.[53]

Ratio analysis is the most vital tool of financial analysis. The various groups of users of financial statements having different interests are engaged in analyzing the financial information. The importance of ratio analysis can be summarized for the various groups interested as under:-

49. Johan W. Coughlan, ***Guide to contemporary Theory of Accounts***, Prentice Hall, Inc, Engle Wood, Cliffs, N.J. 1968, pg. 77
50. Man Mohan & S.N. Goyal, ***Op. Cit.***, pg. 391
51. John W. Coughlan, ***Op. Cit.***, pg79
52. ***Ibid***, pg.80
53. Earl A. Spiller, ***Financial Accounting***, Richard D. Irwin, Inc, Home Wood, Illinois, 1966 pg. 418-19

a) Short term Creditors:- The creditors in the short run – like suppliers of materials, goods and bankers – can determine the firm's ability to meet its current liabilities with the help of liquidity ratios and current ratio.

b) Long term Creditors:- The creditors in the long run – like debenture holders and other lending financial institutions – can determine the firm's long- term financial and ultimately survival strength with the help of financial solvency ratios such as Debt Equity Ratio, Debt to Capital Ratio, etc.

The long-term creditors will seek answers to the following queries: (a) What are the various sources of long-term finances employed by an enterprise? (b) Is there ant risk to the solvency of the firm due to the employment of excessive long-term debts? (c) Will the enterprise be able to repay the principal as well as the interest thereon?

a) Management: The management has an important job of managing the different resources available with the enterprise efficiently and effectively. They can determine the operational efficiency with which the firm is utilizing its various assets in initiating sales with the help of activity ratio like, Stock Turnover Ratio, Capital Employed Turnover Ratio, Assets Turnover Ratio etc. Besides this, the management can carry out comparative analysis and form meaningfully judgment about the performance by comparing the actual ratios with the standard ratios, ratios of the previous period ratios of the industry it belongs and national average.)

b) Investors: The investors can determine the extent of profitability, its earning capacity and the capacity to pay dividends so that they cash form judgment whether to hold, sell or purchase the shares and the prospective investor can decide whether or not to buy the shares.

LIMITATION OF RATIO ANALYSIS:-

1. Ignores qualitative aspects:- Although qualitative factors may be more important than the quantitative factors, the ratio analysis ignores the qualitative aspect as it is basically a quantitative analysis, For example, while deciding whether to sell goods to a customers on credit or not, the ratio analysis relies on the financial statements submitted by him and his character or intension to pay will not form part of the analysis which, in fact could be the most important factor.

2. False Results:- The quality of the ratio depends upon the quality of the accounts on the basis of which these are established. The ratios can only be accurate, if the books of accounts are correctly drawn up. This is because the ratios are based on the information provided by the financial statement. For example, if the closing stock is over-valued, both the financial position and profitability will be shown better than what they actually are.

3. Absence of Universal Standard:- No fixed standards can be laid down for ideal ratios. There cannot be a single standard ratio, which can indicate the true performance of the

business at all times and in all circumstances. Every firm has to work in different situations and circumstances. For example, current ratio is generally considered to be ideal if current assets are twice of the current liabilities. However, in case of those concerns, which have adequate arrangements with their bankers for providing funds when they require, it may be perfectly ideal if current assets are equal to or slightly more than current liabilities.

4. Ignores price-level changes:- The comparability of ratios suffers, if the prices of the commodities in two different years are not the same. In reality, prices do not remain the same and ratio analysis does not have an in-built mechanism to adjust the changing prices. A ratio can be accurately interpreted only if the effect of change in prices, which may have taken place, is adjusted in the figures used in the ratio.

5. Historical Analysis:- Ratios are only indicators, they cannot be taken as final regarding good or bad financial position of the business, are historical in nature unless the ratio analysis is based on the projected financial statements prepaid to plan the future.

6. Ratios alone are not adequate:- Ratios are only indicators, they cannot be taken as final regarding good or bad financial position of the business. No ratio may be regarded as good or bad, it may be an indication that a firm is weak or strong, but it must never be taken as proof of either one.

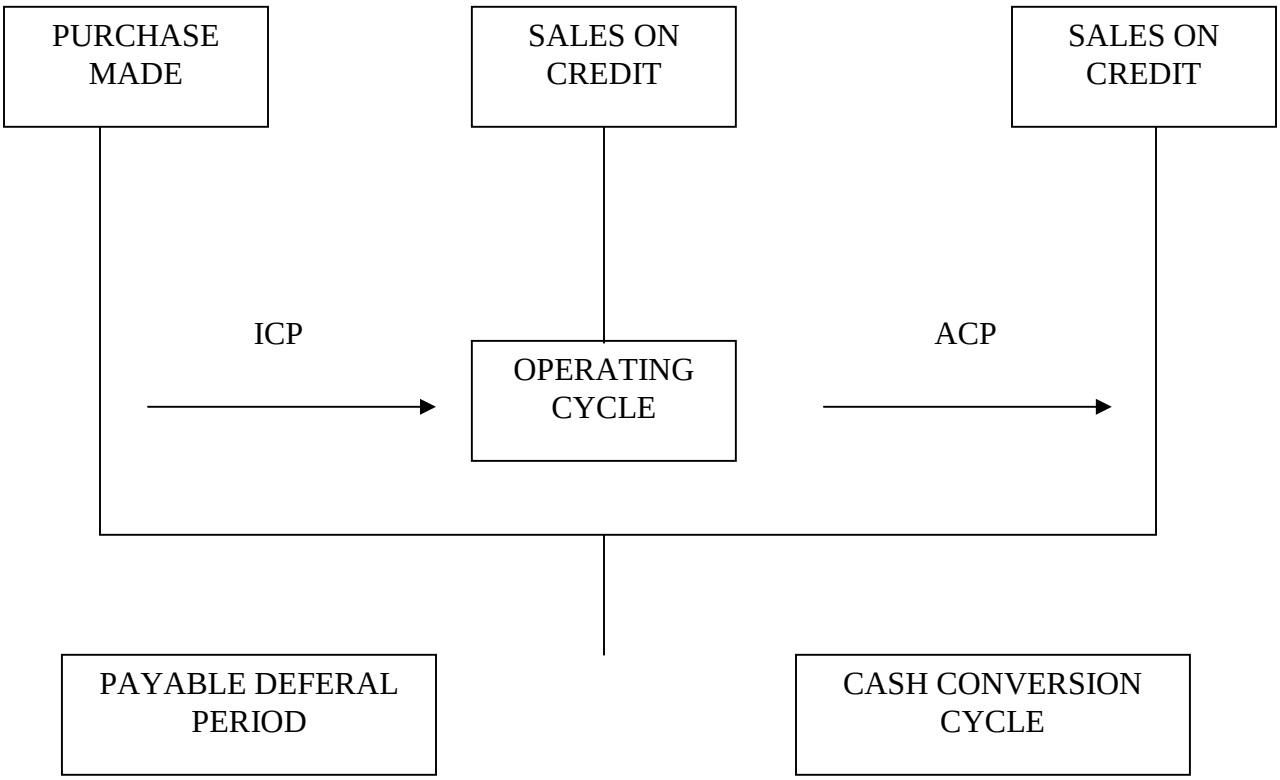
   It may, therefore, be concluded that ratio analysis, if done mechanically, is not only misleading but also dangerous. It is indeed a double-edged sword which requires a great deal of understanding and sensitivity of the management process rather than mechanical skill.

2.1.7.2 CASH CONVERSION CYCLE:-

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

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

Fig. 6
OPERATING CYCLE OF MANUFACTURING FIRM



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

Operating cycle (OC) = ICP – ACP

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

Cash conversion cycle = Operating cycle – Payable deferral period

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.

a) Inventory conversion cycle (ICP):-

ICP refers to the average length of time required to convert raw materials into finished goods and then to sell those finished goods. The longer the inventory period, the larger will be the fund tied-up in inventories and vice-versa. Therefore, the firms want to minimize the inventory period as far as possible. The ICP can be calculated as:-

$$\text{Inventory turnover ratio} = \frac{\text{Cost of goods Sold}}{\text{Average inventory}} = \text{times}$$

$$\text{ICP} = \frac{\text{Days in a year (365 days)}}{\text{Inventory turnover ratio}} = \text{days}$$

$$\text{ICP} = \frac{\text{Average Inventory}}{\text{Cost of goods Sold}} \times \text{Days in a year (365 days)} = \text{days}$$

b) **Receivable Conversion Period (RCP):-**

Receivable conversion period indicates the number of day's debtor's turnover into cash. Its analysis determines the collectibles of debtors and thus, the efficiency of collection effect in ascertaining the firm's comparative strength and advantage relative to its credit policy. Receivable turnover can be calculated by dividing total sales of the year ended balance of debtor and receivable conversion period is calculated by dividing the number of days in a year (i.e. 365 days) by receivable turnover.

$$\text{Receivable turnover ratio} = \frac{\text{Net Sales}}{\text{Average debtors}} = \text{times.}$$

$$\text{RCP} = \frac{\text{Days in a year (365 days)}}{\text{Receivable turnover ratio}} = \text{days}$$

$$\text{RCP} = \frac{\text{Average debtors}}{\text{Net Sales}} \times \text{Days in a year (365 days)} = \text{days.}$$

c) **Payable Conversion Period (PCP):-**

Payable conversion period indicates the number of day's creditor's turnover each year. It is calculated by dividing the sum of account payable and outstanding expenses by the sum of cost of goods sold and general expenses and multiplies by the number of days in a year. (365 days)

$$\text{Payable turnover ratio} = \frac{\text{Cost of goods sold}}{\text{Average Creditors}} = \text{times.}$$

Days in a year (365 days)

PCP = ---------- = days.

Payable turnover ratio

Average Creditors

PCP = ---------- X Days in a year (365 days) = days.

Cost of goods Sold

2.1.7.3 TREND ANALYSIS:-

The trend analysis is the study of changes of the data shown in financial statements over a period of time. It involves the computations of percentage relationship that each statement item bears to the same item in the base year. The earliest year involved in comparison is generally taken as the base year is not a normal year, any other year involved in comparison may be taken as the base year.

In the computation of trend percentage (or trend ratios), the first step is to take up necessary items for a number of years from the statements. It is so because the trend ratios are generally not computed for each and every item of the statements. The second step is to take every item of base year statement as 100. The third and last step is to compute trend ratios by dividing each item of remaining statements with the corresponding item of base year statement. Thus, the method of computation of trend ratios is the same as that of index numbers.

As a matter of fact, the trend ratios may be thought as index numbers showing relative changes if financial data over a period of time. Khan& Jain state "Trend ratios indicate the direction of change in the performance- Improvement, deterioration or constancy over the year.[54]". Thus, trend analysis is a dynamic method of analysis. It enables an analyst to see the future of a concern in its right perspective by making an indication in which it (concern) is going. I.M.Pandey mentions, "The trend analysis of ratio adds considerable significance to the financial analysis because it studies ratios of several years and isolates the exceptional instances occurring in one or two periods.[55]

2.1.7.4 FUNDS FLOW ANALYSIS:-

The term "FUNDS FLOW" statement consists of two terms: 'Funds' and 'Flow'. The term 'Funds' refers to all pecuniary resources that can be measured in terms of money. It may be interpreted as cash or working capital or all financial resources. Net working capital is concerned with the differences between total current assets and total current liabilities.

The term 'Flow' refers to the movement of funds during a period of time. The procurement of funds, during the particular period of time is called inflow of funds and the uses of funds for the particular period of time is called out flow of funds. So, movement of funds is concerned with the inflow and outflow of funds.

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54. Khan, M.Y. and Jain, P.K., '***Financial Management***, 'Tata Mc Graw Hill Publishing Co., New Delhi, 1989, Pg.81.
55. Pandey, I.M., '***Financial Management***,' Vikas Publishing house Pvt.Ltd., New Delhi, 1989, Pg. 532

The statement which is designed to highlight the changes in the financial position of a business organization during the two periods of time is known as funds flow statement. According to A.N. Anthony, "A funds flow statement is a statement prepared to indicate the increase in the cash resources and the utilization of such resources by a business during the accounting period."

According to Smith & Brown, "A funds flow statement is prepared in summary form to indicate changes occurring in items of condition between two different balance sheet dates."

According to Foulke, "A statement of sources and application of funds is a technical device designed to analyze the changes in the financial position of business enterprise between two dates."

According to P. Chandra, "The funds flow statement, also called the statement of changes in financial position, shows the sources and uses of funds during a given accounting period. This statement, drawing on the information contained in the balance sheet and the profit & loss account, provides insights into the movement of funds and helps in understanding the changes in the structure of assets, liabilities, and owner's equity."

On the basis of above definitions it can be said that the comparative study of two balance sheets of a concern prepared for two different years for knowing the financial activities of a company is known as funds flow statement. The main purpose of funds flow analysis is to acquire the clear, information about the financial transactions that brings change in the resources of a company. It reflects the management's efforts in generating funds from various sources and the uses to which they are put for generating income without sacrificing the financial health of the entity. Therefore, this statement is of great importance to both creditors and owners as it enables them to obtain information concerning financing and investing activities of a business enterprise and the consequent changes in its financial position for a period. The genesis of the funds flow statement is the limited role performed by the financial statements in providing the details about the funds the business received from each source and the amount of funds used for each purpose throughout the year. A funds flow statement will help the management in allocating the scarce resources for meeting the productive requirements of the business. The uses of funds should be planned in such a manner that the available resources are put to the best use. The allocation should ensure that the business is in a position to make payment of interest and loan installments as per the agreed schedule. It is a test of effectiveness with which the working capital is used by the management during a particular period. The adequacy or inadequacy of working capital will guide the management to take possible steps for effective use of surplus working capital or make arrangements in cash of inadequacy of working capital.

Activities conducted by the business or any other actions by the management which results in the inflow of funds is considered as sources of funds. On the other hand, funds utilized for various purposes are considered as applied and hence known as application or uses of funds.

SOURCES OF WORKING CAPITAL:-

a) Funds from Operations: - 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.

b) Proceeds from the sale of non-current assets: - Sale of non-current assets tantamount to conversion of a 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.

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

d) Issue of shares for cash:- Issue of shares results in an inflow of current assets and is, therefore, a source. In the case of sole proprietorship and partnership concerns additional capital introduced is a source of funds.

e) Non-operating Income:- Incomes like dividends, 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 a source.

APPLICATONS 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.

(a) 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.

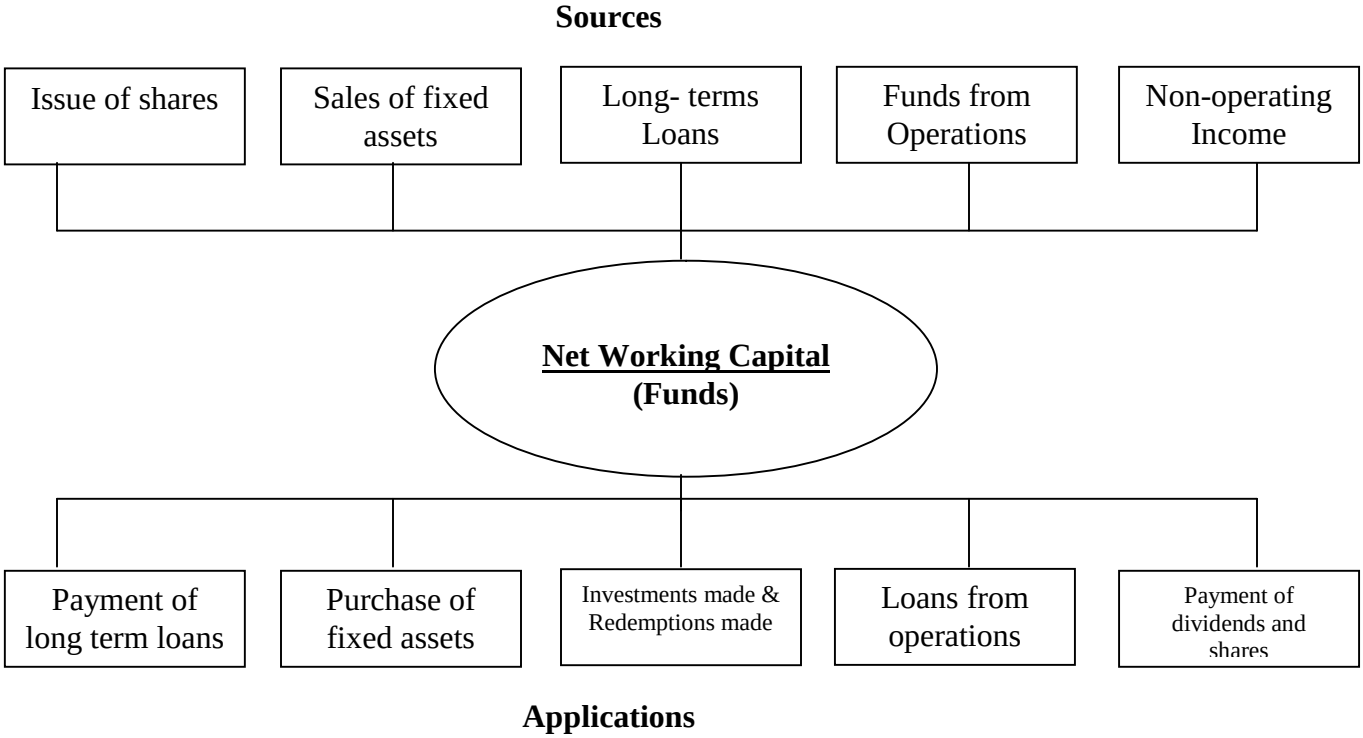
(b) Redemption of preference shares or Investment made: When cash is paid to redeem preference shares or to purchase securities as investment, working capital is reduced and therefore is use of fund.

(c) 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.

(d) Payment of dividend, tax etc: Any dividend or tax paid in cash results in outflow of current assets, therefore, an application of funds.

The sources and applications of funds are diagrammatically depicted in the following figure:

Fig. 7
Sources and Applications of Funds



2.2 REVIEW OF JOURNAL / ARTICLES & RELATED STUDIES:-

In this section, an endeavor has been made to review the articles on working capital of Nepalese Public Enterprises by different management experts with a view to forming an empirical background for the study. The articles reviewed are a follows.

Dr. Manohar K. Shrestha has conducted an empirical observation of twelve selected PEs[56]. In his article, he has described the conceptual ingredients concerning the working capital and types of working capital. From the analysis, he found that the liquidity position of the selected PEs differ widelyin view of the differences in their nature of business. There were also above normal acid test ratios. While analyzing, the turnover of those selected PEs showed wide deviation. Based on the sales volume, four out of seven PEs, had normal inventory turnover, the other three had not been satisfactorily maintained and in some of them, inventory was found to have exceed sales. The collection period relating to the selected

56. Dr. Manohar K. Shrestha. "Working capital Management in selected PEs."

PEs exhibited marked 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.

Pradhan and Koirala had jointly conducted a study on "Working capital Management in Nepalese Corporations."[57] They had focused on evaluation of working capital of working capital of selected manufacturing and non-manufacturing corporations of Nepal. They had sampled five manufacturing and six non-manufacturing public enterprises. This study was concentrated in the size of investment in current assets, significance of current assets management. The major findings of the study were as follows:-

i) Investment on total assets had declined over period of time in both manufacturing corporations. However, the manufacturing corporations (MPES) had consistently more investment in cash and receivable as composed to non-manufacturing corporations.
ii) Inventory management was of great significance in manufacturing corporations and the management of cash and receivable was of great significance in non-manufacturing corporations.
iii) Management of working capital was more difficult than that of fixed capital.
iv) The major motive for holding cash in Nepalese corporations was to provide a reserve for routine net cash outflows of cash to keep on the production process.

Another article composed by prof. Manohar K. Shrestha has considered ten PEs and studied their working capital management.[58] He has focused on the working capital liquidity, turnover and profitability position of those enterprises. In this analysis, he found four PEs having excessive and the rest four PEs failing to maintain desirable liquidity position. On the turnover side, 2 PEs had negative working capital turnover, four had adequate turnover on net working capital.

He has also found that out of ten PEs, six were operating in losses while only four were getting some percent of profit. With the reference to his findings, he has brought certain policy issues such as lack of suitable financial planning, negligence of working capital management, deviation between liquidity and turnover of assets and in ability to show the positive relationship turnover and return on net working capital. In the end, he had made some suggestive measures to overcome the above policy issues i.e. identification of needed funds, regular checks of accounts, development of management information system, positive attitude towards risk & profit and determination of right combination of short-term sources of funds to finance working capital needs.

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57. Radhe Shyam Pradhan and Kundan Dutta Koirala, "***Aspects of management in Nepalese Corporations***," (Institute of Management T.U. Kirtipur, July 1982)

58. Dr. Manohar K. Shrestha " ***Working Capital Management in PEs: A study on Financial results and constant***." ISSDOC, VOL. 8 No. 1, 4 July 82- June 83.

Dr. K. Acharya has published another article relating to working capital management. He has described the two major problems operational problems and organizational problems regarding the working capital management in Nepalese PEs.[59]

The operational problems he found are increase of current liabilities than current assets, not allowing the current ratio 2:1 and slow turnover of inventory. Similarly, change in working capital in relation to fixed capital had very low impacts over the profitability thin transmutation of capital employed to sales, absence, of apathetic management information system, break-even analysis, funds flow analysis and ratio analysis were ineffective for performance evaluation. Finally, monitoring of the paper functioning of working capital management has never been considered a managerial job.

In the second part, he has listed the organizational problems in the PEs. In most of the PEs there is lack of regular internal and external audit system as well as evaluation of financial results. Similarly, very few PEs have been able to present their capital requirement. Functioning of finance department is not satisfactory and some PEs are even facing the underutilization of capacity.

R.S. Pradhan has prepared another article relating to working capital management. He has studied on "The demand for working capital by Nepalese corporations."[60] For the analysis, he has selected nine manufacturing public corporations with the 12 years data from 1973-1984. Regression equation has been adopted for the analysis. From the study, he has concluded that the earlier studies concerning about the demand for cash and inventories by business firm did not report unanimous findings.

A lot of controversies exist with respect to the presence of economies of scale, roles of capital lost, capacity utilization rates and the speed with which actual cash and inventories are adjusted to describe cash and inventories respectively. The pooled regression result shows the presence of economies of scale with respect to the demand for working capital and its various components. The regression results suggest strongly that the demand for working capital and its components is function of both sales and their capital cost.

The estimated results show that the inclusion of capacity utilization variable in model seems to have contributed to the demand function of cash and net working capital only. The effects of capacity utilization on the demand for inventories, receivable and gross working capital is doubtful.

REVIEW OF THESIS:- The study of working capital management of public enterprises in Nepal is not entirely a new effort. Various studies on working capital management of Nepal have been made by different experts and students of MBS/ MBA. Some of them are reviewed in this section.

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59. Dr. K. Acharya, "***Problems and Impediments in the Management of Working Capital in Nepalese Enterprises***" ISDOC Vol – 10 No. 3, Jan – Mar, 1985
60. Dr. R.S. Pradhan "***The Demand For working capital by Nepalese Corporation." The Nepalese Management reviews***, Vol-8, No.1,1988

Bikram Gurung (056/057) had carried out a study on working capital management of Nepal Lever Limited.[61] This study has covered the span of Five Years (053/54 to 057/58). The objectives of the study were to analysis the liquidity, composition of WC, assets utilization and profitability of NL Ltd., to examine the relationship between liquidity and profitability of NL Ltd. and know whether the NL Ltd. 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:-

i) The major components of current assets in NL Ltd. are inventories, receivable, prepaid expenses and advance. Among these inventory has held the major portion of current assets. It was found that out of total current assets, inventory held the largest portion followed by miscellaneous current assets, sundry debtors, cash and bank balance respectively.

ii) The current ratio of the company ranged in between 0.86 to 1.73 during the study period in fluctuating trend. The company was unable to maintain its current ratio of 2:1 in average of the study period.

iii) The proportion of current assets to sales varied from 19.77% to 36.83% during the study period i.e. the current assets investment policy of NL Ltd. has been shifting towards the moderate policy.

iv) Sundry creditors held the major portion of liabilities in NL Ltd. The average percentages of sundry creditors, short term loan and miscellaneous were 48.30% , 17.34% and 34.37% respectively.

v) Profitability is one of the measures of overall efficiency of the management. The profitability of NL Ltd. was in increasing trend except in 2055/56. It was the highest in 057/58 and least in 053/054 and been suggested by Mr. Gurung that NL Ltd. should set the standard for the ratio of current assets to fixed assets. It has no clear vision about the management of current assets to fixed assets.

Thus, NL Ltd. should have the proper plan to improve its profitability in future. It is also recommended that the volume of sales should be increased and the proportion of current assets should be maintained according to its sales volume.

Bhagwan Aryal has carried out a comparative study on "Working Capital Management Of Hetauda and Balaju Textile Limited."[62] The objectives of this study were to analyze the liquidity, solvency, utilization, profitability position and overall comparison of working capital management of both textile companies. He had used ratio analysis and t-test for the analysis. The findings of the study were as follows:-

61. Bikram Gurung, "*A study on working capital management of Nepal lever Ltd*." (Unpublished masters Degree Thesis, Shankar Dev Campus, KTM)
62. Bhagwan Aryal, "*An analysis of working capital management with special reference to Hetauda Textile and Balaju Textile*" (Unpublished masters degree thesis, Shankar Dev Campus, T.U. 1995)

- The liquidity position of Hetauda Textile Limited was better than that of Balaju Textile Limited. But both of the companies have not followed a proper working capital policy.
- Total assets turnover of both companies was not satisfactory and there was not significant difference of total assets turnover.
- Cash balance maintained by Balaju Textile Ltd. was better than that of Hetauda Textile.
- Solvency position of Hetauda Textile was better than that of Balaju Textile.
- Profitability position of Hetauda Textile was better than that of Balaju Textile, however, both companies have not a good profitability position during the study period.

Another study related to working capital management had been carried out by Ram Prasad Sharma on working capital management of selected manufacturing companies.[63] He had selected sixteen companies, which are listed in Nepal stock exchange (1981-1996). He focused on empirical testing of the variable affecting in Nepalese manufacturing companies based on the variable such as ; Current assets, Current liabilities, Sales, Net profit and Total assets. He used financial and statistical tools such as; Ratio analysis, Cash conversion cycle, Co-efficient of correlation, Probable error and Simple regression model. He found that many companies followed conservative policy. He recommended that they followed the quarterly working capital plan, used effective working capital policy some may improve their liquidity position and must minimize the operating cost.

Surya Nath Mishra conducted a research work on, "A study on Financial statement analyais of Janakpur Cigarette Factory."[64] In this study, the major findings were liquidity position of JCF was poor or low. The reason behind unsatisfactory liquidity position and low inventory turnover was a large pilling up of stocks. The overall profitability position and investment policy of JCF were satisfactory to some extent. The long term solvency of JCF from creditors' point of view was also found satisfactory.

A study was conducted by Mr. Dhruba Raj Pokharel on "a study on inventory management in JCF."[65] He observed that the JCF's procurement and consumption rates of raw materials were varying and different factors were responsible for the procurement and product paying of JCF was defective. The company also faced the problem of overstocking of raw materials and finished goods. As a result, it raised the problem of working capital management in JCF. The selling price of JCF's cigarette increase year by year. There was the lack of sales planning. However, inventory turnover ratio of JCF was found satisfactory.

63. Yam Prasad Sharma, "*A study on working capital management of skated manufacturing companies*." Master degree thesis, T.U.1999
64. Surya Nath Mishra, "*A study on financial statement analysis of Janakpur Cigarette Factory Ltd.,"* An unpublished master's level dissertation T.U.1983
65. Dhurba Raj Pokharel, "*A study on inventory management in JCF*." An unpublished master's level dissertation T.U.1992.

The study conducted by Mr. Pokharel is concerned with inventory management of JCF. This study will shed light on working capital management of JCF using different financial tools.

Another study was also conducted by Mr. Jitendra Pd. Upadhyay, "A financial analysis of manufacturing public enterprises in Nepal."[66] The main objective of this study is to have a true picture of the financial condition and performance of JCF in terms of profitability. It observed that the profit earned by JCF was not satisfactory and was much below the prevailing rate of profitability. He recommended that should launch long-range program to cut down the excessive cost of production, administration and selling and the high financial expenses.

A study was also conducted by Mr. Dilip Raj Regmi on "A study on financial performance of JCF Ltd.".[67] The general objective of this study is to evaluate the financial performance of JCF through liquidity, efficiency and profitability. It was found that the liquidity position of the company was poor and unsatisfactory making as indication of its poor working capital policy. The company was not able to take benefit of trading on equity policy to the desired extent. Its profitability position was also unsatisfactory.

Lastly, a study conducted from Mr. Anil Agrawal on "a study on working capital management in Nepal Cigarette Factory on special of JCF."[68] The general objective of this study is to evaluate working capital on different concept. This is studied about the working capital policy used by JCF and financial position, Current Assets, Current liabilities and other terms has better in the firm.

The review of previous studies makes it clear that no study has been made specifically on working capital management of JCF covering the period of the present study. As, such, the need for this study cannot be denied.

66. Jitendra Pd. Upadhyay, "A *financial analysis of manufacturing public enterprises in Nepa*l." A unpublished master's level dissertation.
67. Dilip Raj Regmi, "*A study on financial performance of JCF*." A unpublished master's level dissertation.
68. Mr.Anil Agrawal, "*A study on working capital management of JCF*." A unpublished master's level dissertation.

CHAPTER- III

"Research Methodology"

3.1 INTRODUCTION

Research methodology is a sequential procedures and methods to achieve the objectives of the study. A sound research study needs to follow a proper methodology in order to achieve predetermined objectives. The methodology adopted in this study for the fulfillment of the stated objectives consists of research design, nature & sources of data, collection of data, data processing and tools for analysis of data.

3.2 RESEARCH DESIGN

Research design is the plan, structure and strategy of investigation conceived to obtain answer to research questions and to control variance. It includes important procedures and techniques for guiding, analyzing and evaluating the study. Analytical as well as descriptive approaches have been followed in the present study.

3.3 POPULATION AND SAMPLE

An opinion with respect to the performance of working capital management of JCF can be obtained very well by analyzing its financial statements. It has altogether 40 financial statements which are considered as the population in this study. As it would be time consuming costly and difficult to analyze and study the whole population, the purposive samples selected for the study are only 10(i.e., from f/y 2051/52 to 2060/61).

3.4 NATURE AND SOURCES OF DATA

The study is based mainly on secondary data. The data for evaluating the performance of working capital management of JCF has been obtained directly from the registered head office of the factory. Again, the information has also been obtained from the unpublished official records of the factory and the office of the registrar of company, the reports of the controller and Auditor General of Nepal, and the previous studies related to this aspect. Also the relevant information has been sought from the key personnel of the factory.

3.5 DATA PROCESSING

Though the existing formats of income statements and balance sheets of JCF contain the basic data required for the study, they are clumsy and as such require a lot of

adjustments for a purposeful analysis. Hence, the income statements and balance sheets obtained from the factory have been recasted and presented in a condensed form. The figures taken from the income statements and balance sheets have been rounded off up to two decimal places in thousand of rupees with a view to facilitating their analysis. The data contained in the condensed income statements and balance sheets have finally been arranged in different tables needed for the fulfillment of stated objectives.

3.6 TOOLS FOR ANALYSIS OF DATA

The financial techniques like ratio analysis, trend analysis, funds flow analysis and cash conversion cycle form the main tools for the purpose of analyzing financial facts in the present study. In addition, the statistical tools like percentage, average, standard deviation, correlation, regression and index number have also been applied to make the analysis more systematic, scientific and useful. Also, graphs have been constructed to give a much more vivid picture of the trends and relationships of the financial facts under consideration.

3.7 ORGANIZATION OF THE STUDY

The entire study has been divided into five major chapters. The first chapter gives a general introduction of the subject matter covering background of the study, need and significance of the study, statement of problem, objective of the study and limitations of the study. In the second chapter the pertinent literature and studies have been reviewed making logical and meaningful groupings into conceptual framework and review of journals and previous studies. The third chapter furnishes the research methodology encompassing research design, population and sample, nature and sources of data, data processing, tools for analysis of data and organization of the study. In the fourth chapter, the relevant data have been presented in the form of tables and graphs and analyzed with the help of financial and statistical tools for drawing interferences. The fifth chapter accommodates summary, conclusions and suggestions for ameliorating the working capital position of the factory.

CHAPTER - IV

DATA PRESENTATION AND ANALYSIS:-

Management of working capital, a crucial aspect of financial management determines to a large extent the success or failure of an enterprise. Most of the enterprises, often are suffering from different problems, such as, shortage of funds, irregular cash flow, piling up of inventory, blocking of funds in receivables for long period due to lack of proper management of funds. A firm can choose appropriate combination of working capital only after systematic analysis of its different aspects. The analysis of working capital enables management to detect trends and take corrective steps whenever necessary. Considering the above facts and realities, an attempt has been made in the present study to analyze and interpret the available empirical data in relation to various aspects of working capital management of JCF:

4.1 PRESENTATION AND ANALYSIS OF DATA:-

In this chapter, the effort has been made to analyze the working capital management of JCF, which is the main objective of the study. This chapter will present the analysis of various components of working capital of JCF, 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. The major variables for this study are current assets, current liabilities, quick assets, sales, and cost of sales, long term debt, and total assets and shareholders fund. Simply presenting the variable is not sufficient and for this financial tools and statistical tools are to be employed to measure the working capital management of Janakpur Cigarette Factory for the purpose of analysis. First the researcher has dealt about the working capital policy followed by JCF, then the financial ratios and finally cash conversion cycle, funds flow analysis. Besides this, trend analysis correlation co-efficient, mean standard deviation, probable error and simple linear regression analysis are used for this analysis.

CURRENT RATIO

The current ratio, also known as working capital ratio, matches the current assets to current liabilities of a firm. The current assets refer to those assets which can be realized in cash during the course of financial year, such as cash in hand, cash at bank, marketable securities (Short-term), short-term investment, bills receivable, sundry debtors, inventories of raw materials, semi finished goods and finished goods and prepaid expenses. The current liabilities allude to those liabilities which have to be met during the course of financial year, such as outstanding expenses, bills payable, sundry creditors, short-term advances, income tax payable, dividend payable, bank overdraft, long term debt maturing in current year and contingent liabilities by way of discounted bills receivable and guarantees. The ratio of current assets to current liabilities is computed as follows:-

$$\text{CURRENT RATIO} = \frac{\text{CURRENT ASSETS}}{\text{CURRENT LIABILITIES}}$$

This ratio examines the liquidity position of a firm. The liquidity means the ability of a firm to meet its current obligations as and when they fall due for payment. A relatively high current ratio indicates that the liquidity position of the firm is good and the firm is able to pay its obligations on demand. On the other hand, a relatively low ratio indicates that the liquidity position of the firm is not good and as such the firm will find it difficult to pay its maturing obligations. Therefore, the present and prospective creditors of a firm always prefer a very high current ratio. But a very low current ratio is undesirable from the point of view of the firm itself as it reflects bad financial planning or presence of idle assets or overcapitalization. In fact, there should be neither a very high nor a very low current ratio, conventionally, a current ratio of 2:1 (Current assets twice the Current liabilities) is considered to be a satisfactory current ratio for a commercial or industrial undertaking.

The current ratio of Janakpur Cigarette Factory has been presented in Table 4.1, along with the standard deviation and Co-efficient of standard deviation in current assets and current liabilities and the Co-efficient of Correlation between current assets and current liabilities.

Table 4.1
Current ratio of JCF (2052/53 to 2062/63)

Rs. (In "000")

Year	Current Assets	Current Liabilities	Current ratio(times)
2052/53	359729	89913	4.000
2053/54	363758	165847	2.193
2054/55	362196	188669	1.920
2055/56	353447	203526	1.737
2056/57	372900	200945	1.856
2057/58	408056	206274	1.978
2058/59	390899	196244	1.992
2059/60	421318	184055	2.289
2060/61	415202	140926	2.946
2061/62	343464	255968	1.342
2062/63	309781	262847	1.179

Sources: Annual reports of JCF from the years 2052/53 to 2062/63

(A) Standard Deviation of Current assets = 32.04
Standard Deviation of Current Liabilities = 46.03

(B) Co-efficient of Standard Deviation of Current assets = 0.0859
Co- efficient of Standard Deviation of Current Liabilities = 0.241

(C) Co-efficient of Correlation between Current assets and Current Liabilities = -0.46

The absolute amounts of both current assets and current liabilities of the factory during the period of study from 2052/53 to 2062/63, as shown in table- 4.1, recorded indefinite trends. The linear co-efficient of correlation between current assets and current liabilities comes to -0.46 which shows that the two variables have low degree of negative correlation and suggested that the factory has followed fairly uniform policy to finance current assets and current liabilities. The standard deviation in current assets and current liabilities are Rs.32.04 thousands and Rs.46.03 thousands respectively while the co-efficient of standard deviations for current assets and current liabilities are 0.0859 and 0.2416 respectively. The greater Co-efficient of Standard deviation for current liabilities shows that the current liabilities show that the factory varied more than its current assets.

The current ratio of the factory marked highest trend in the 1st year, But from 2053/54 to 2062/63, the current ratio is in declining stage with increasing form comparison in remaining years. The factory maintains standard ratio in 2053/54 and 2054/55. The current ratio of 2053/54 to 2055/56 indicates the decreasing trend as 2.193 to 1.737 respectively. From 2056/57 to 2060/61, the current ratio is in increasing trends as 1.856 to 2.946 respectively. During 2056/57 to 2060/61, the current ratio indicated the highly increasing trends. But, in 2061/62 and 2062/63, the current ratio is being decreased trend. It shows the current ratio in present time is not maintaining the standard ratio. Hence, the short-term financial condition or liquidity position of the factory was satisfactory but it became seriously weak in the 2061/62 and 2062/63.

QUICK RATIO

As a more penetrating or refined measure of liquidity, quick or acid test ratio expresses the relationship between quick or liquid assets and current liabilities. The quick assets refer to those assets, which can be converted into cash within a month, or quickly which include current assets less stock (Inventory) and prepaid expenses. Stock or inventories and prepaid expenses are excluded from the list of current assets to determine quick or liquid assets. It is so because organization might hold large quantity of raw materials stock, which must be used in production to create finished goods. Similarly prepaid expenses are not available to pay the debt, so it is also excluded from the list of liquid assets. The liquid assets comprises cash in hand, cash at bank, sundry debtors, bills receivable, marketable securities, short term investment, short term loans and advances, accrued income etc. The ratio of quick assets to current liabilities as follows:

$$\text{QUICK RATIO} = \frac{\text{QUICK OR LIQUID ASSETS}}{\text{CURRENT LIABILITIES}}$$

This ratio measures the short-term liquidity of the firm but it emphasizes the instant debt paying capacity of the firm. Liquidity refers to the ability of a concern to meet its current obligations as and when these became due. The short-term obligations are met by realizing amount from current assets. It also examines the ability of the firm to pay off its current obligations without relaying on the sales and collection of inventories. Generally Quick Ratio of 1:1 or equal portion of liquid assets and current liability is considered to represent measure of satisfactory liquidity position of the organizations. Excessive as well as short quick ratio serves against the interest of organization. It is considered that if the quick assets are equal to current liabilities, then the firm may be able to meet its short-term obligations without any financial difficulties to it. A high quick ratio indicates that the liquidity position of the firm is good and the firm is able to pay its obligations on demand on the other hand a low quick ratio represents that the firm's liquidity position is not good.

The quick ratio of Janakpur Cigarette Factory has been presented in Table 4.2, along with the standard deviation and co-efficient of standard deviation in quick assets and current liabilities and the co-efficient of correlation between current assets and current liabilities.

Table- 4.2
Quick Ratio of JCF (2052/53 to 2062/63)

Rs. (In '000')

Year	Quick Assets	Current Liabilities	Ratio (in times)

2052/53	180438	89913	2.00
2053/54	182852	165847	1.10
2054/55	182913	188669	0.97
2055/56	171677	203526	0.84
2056/57	159894	200945	0.80
2057/58	194231	206274	0.94
2058/59	77300	196244	0.39
2059/60	95883	184055	0.52
2060/61	104113	140926	0.74
2061/62	96843	255968	0.38
2062/63	97806	262847	0.37

Source: Annual reports of JCF from the year 2052/53 to 2062/63.

(A) Standard Deviation of
Quick Assets = 43.13
Current liabilities = 46.03

(B) Co- efficient of standard deviation, of
Quick Assets = 0.31
Current liabilities = 0.2416

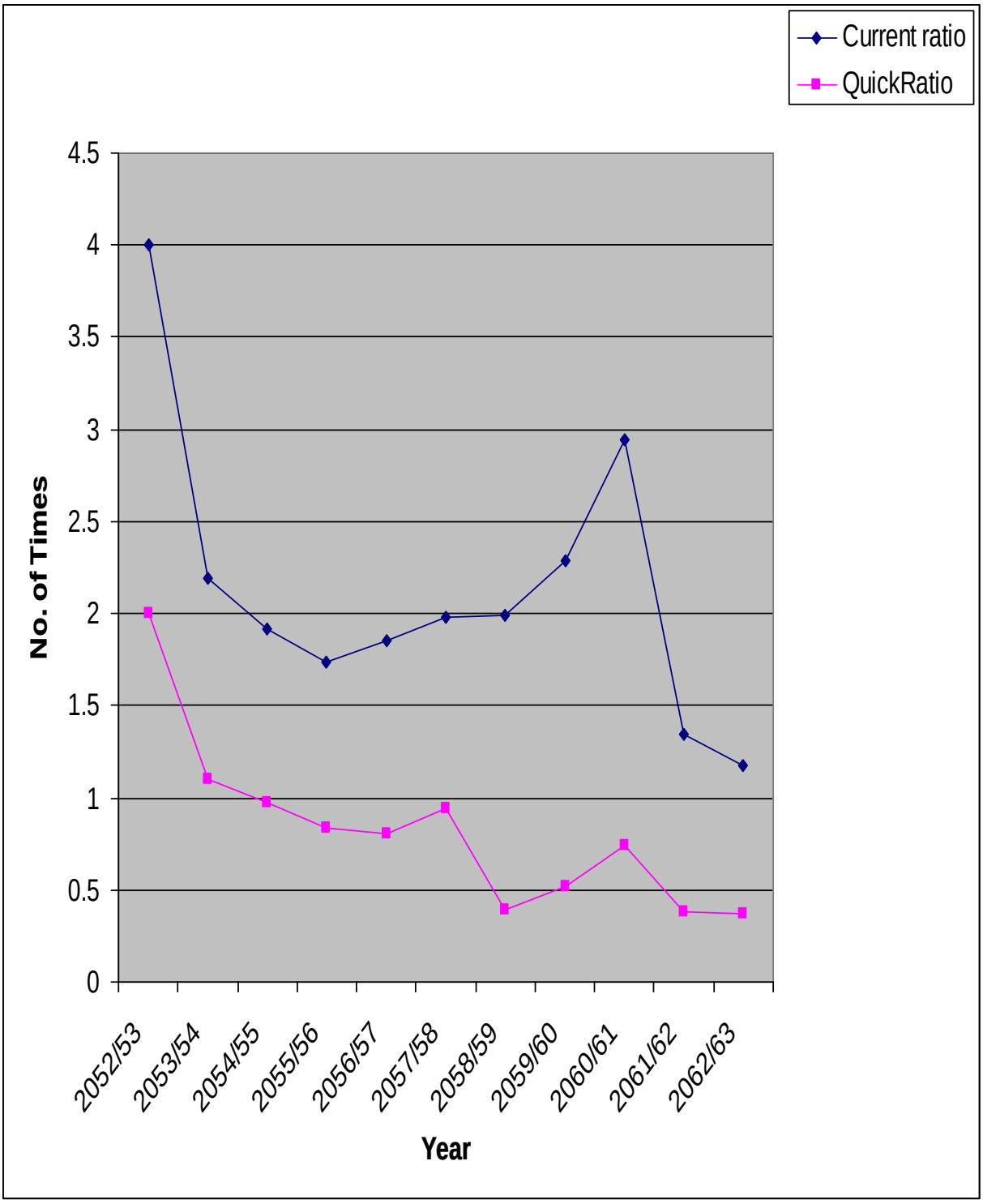
(C) Co- efficient of correlation between quick assets and Current Liabilities = -0.36

The absolute amounts of quick assets and current liabilities of the factory, as indicated in Table 4.2 registered indefinite trends during the period of study from 2052/53 to 2062/63. The linear co- efficient of correlation between quick assets and current liabilities comes to -0.36 which indicates that the two variables have low degree of negative correlation and suggests that the factory has followed uniform policy of financing quick assets and current liabilities. The standard deviations in quick assets and current liabilities are Rs. 43.13 thousands and Rs. 46.03 thousands, respectively whereas the co-efficient of standard deviations for quick assets and current liabilities are 0.31 and 0.24 respectively. The co-efficient of standard deviations of quick assets and current liabilities are less variance indicating that better in future years also.

The quick ratio in starting year 2052/53 is excess i.e. 2:1. It is more than standard ratio 1:1. This is not the better position because excessive liquid assets indicate ideal cash in business. But from year 2053/54 to 2056/57, the quick ratio is in declining stage than standard ratio. On fourth years, the quick ratio is declining trend indicated the change of quick ratio is comparable change of quick assets less than the change of current liabilities. In year 2057/58, the quick ratio is more than past four declining trends years, i.e. 0.94 times. But, this is also the less than standard ratio. After this increasing of quick ratio in 2057/58, the other years i.e. next years from 2058/59 to 2062/63, the quick ratio is in declining trends. These five years are lower quick ratios of study years. The reason for this as a decrease in liquid assets accompanied by a lower relative decrease in current

liabilities. Obviously, it was always less than the standard ratio of 1:1 during the last nine years of study. Hence, the liquid financial position of the factory was satisfactory during the first two years but it became seriously weak during the remaining years of study.

Fig. 8
Liquidity Position of JCF
(For 2052/53 to 2062/63)



INVENTORY TURNOVER RATIO:

An enterprise is required to maintain inventory or stock for efficient and smooth procurement, production and sales operations. As such, inventories constitute a lion's share of their current assets requiring huge investment, so it is necessary to manage

inventories efficiently and effectively to avoid unnecessary investment. Inventories have been called the grave yard of a business because they have frequently been the prime cause of business failure. If the factory possesses excessive inventory for a long period it increases the chances of loss of liquidity in it. The factory may even be bankrupt if both the inventories and liabilities are heavy. So, it is essential to establish the relationship between stock figures to total sales so called inventory turnover ratio or stock turnover ratio. The ratio of inventory (stock) to sales is computed as follows:-

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

Inventory turnover ratio indicates the efficiency with which the inventories of the firm are managed. It indicates whether the investment in inventory is efficiently used or not. It also explains whether investment in inventories is within proper limits or not and marketability of inventory and reasonableness of quality on hand. The inventory turnover can also be computed by dividing the sales figure by inventory but calculation of inventory turnover by dividing cost of sales with average inventory is more appropriate. The logic behind establishing relationship between cost of goods sold rather than sales because the stock is at cost price and the sales include the profit portion also. Alternatively, the stock may be converted into selling price by adding profit portion and be compared with sales instead of cost of sales. Likewise, stock may have changed significantly during a year and as much, it is particularly important to use a yearly average than the year end stock amount. If the information regarding the cost of goods sold and average inventory are lacking, this ratio can be computed by dividing the figure of sales by year-end inventory figure.

Inventory turnover ratio measures the velocity of conversion of stock into sales. A high stock turnover indicates efficient management of inventory, because more frequently the stocks are sold, the lesser amount of capital is required to finance the inventory. But excessively high ratio may be a symptom of under investment in stock, which may bring serious drawbacks in future. On the contrary, a low stock turnover indicates over investment in stock, dull business, poor quality of goods, stock accumulation, accumulation of absolute and slow moving goods, low profits as compared to total investment and inefficient inventory management.

The Inventory Turnover ratio of JCF has been presented in Table-4.3 for the financial year 2052/53 to 2062/63.

Table - 4.3
Inventory Turnover Ratio of JCF (2053/53 to 2062/63)

Rs. (in '000')

Year	Cost of sales	Average Inventory	Ratio(in times)
2052/53	602703	151960	3.966
2053/54	606175	132880	4.562
2054/55	754143	129629	5.818
2055/56	751492	126969	5.919
2056/57	777252	141516	5.492
2057/58	894064	154217	5.797
2058/59	898266	161503	5.562
2059/60	885485	174491	5.075
2060/61	864831	166820	5.184
2061/62	863828	148863	5.803
2062/63	841999	129183	6.518

Source: Annual Report of JCF from the years 2052/53 to 2062/63

During the period of study, the ratio of average inventory to cost of sales fluctuated from 3.966 times in the year 2052/53 to 6.518 times in the year 2062/63. During this period, the cost of sales to average inventory low increasing and decreasing times because inventory has not been managed efficiently. It was always below the generally accepted ratio of 7 or 8 times during the period of analysis.

DEBTOR/ RECEIVABLE TURNOVER RATIO:

When credit is used as a tool for promotion is sales, debtors or account receivables and bills receivables emerge in the enterprise's books of accounts. As the firm requires waiting over a short period in future to get payment against goods or services delivered to the customers on credit, debtors form the current assets and consume the relative share of firm's resources.

Trade credit is an essential marketing tool in the hand of management in order to protect the sales of the factory from competitors and to attract the potential customers to buy its products. It creates receivable or book debt, which the factory is expected to collect in the near future. In JCF book debts do not constitute as substantial portion of current assets as in other companies. It was informed by the management of JCF that the factory sells its products only in cash or on seven days bank guarantee. But as mentioned in the financial statements, it cannot be said to have completely closed the credit, sale in JCF and thus it is absolutely imperative for an analyst to find out the rate at which cash is generated by turnover of debtors. The turnover of debtors, which is an excellent supplementary check to be used for judging the adequacy of current ratio, has been calculated by dividing the amount of sales by the amount of trade debtors. The number of days to collect debtors has also been calculated by dividing the product of trade debtors and the number of working days by the amount of sales. The total sales for the computation of ratio have been used in the absence of the break-up of sales into cash and credit in financial statement of the factory.

For the purpose of calculating debtors turnover ratio in JCF only those debtors at the end of ach fiscal year have been included which arise from the regular sale of the factory. Reserve for bad and doubtful debts has not been deducted from the total amount of trade debtors in order to avoid the impression that a larger amount of debtors have been collected. The turnover of debtors can be increased by allowing less credit period to debtors. i.e., making collection within a short period. The effective credit administration results in higher turnover of debtors, which is good enough for the short-term creditors of the factory. For higher profitability a high turnover of inventory should be accompanied by prompt collection of debtors, which in turn serves the purpose of long-term creditors of the factory.

$$\textbf{D.T.R} = \frac{\textbf{Sales}}{\textbf{Debtors}}$$

The debtors turnover ratio shows the relationship between net credit sales and average debtors to evaluate the efficiency with which the debtors are managed. It indicates the number of times the debtors rotate in a year.

The following table shows debtors turnover ratio in JCF from 2052/53 to 2062/63.

Table – 4.4
Debtors Turnover Ratio of JCF (2052/53 to 2062/63)

Rs. (In '000')

Year	Sales	Debtors	D.T.R (in times)	Average Collection Period(ACP) (in days)

2052/53	686568	33319	20.606	18
2053/54	688032	49607	13.869	26
2054/55	911377	54014	16.873	21
2055/56	960392	41311	23.248	16
2056/57	1020054	45952	22.198	16
2057/58	1192066	40149	29.691	12
2058/59	1177090	50415	23.348	15
2059/60	1161042	39959	29.056	12
2060/61	1136139	52855	21.495	17
2061/62	1153879	48907	23.593	15
2062/63	1088470	54426	20.001	18

Source: Annual Reports of JCF from the years 2052/53 to 2062/63

The debtors turnover ratio of the factory as indicated in table 4.4, marked a fluctuating trend in the period of study. It varied from 13.869 times in 2053/54 to 29.691 times in 2057/58 recording a range of 15.882 times. While during the year 2053/54 it decreases with high range as compared with 2052/53 due to slight increase in sales in comparison to the higher increase in debtors. After the year 2059/60, the debtors turnover ratio is decreasing trends in JCF. Likewise, the average collection period also recorded fluctuating trend varying from 12 days in 2059/60 to 26 days in 2053/54. It always exceeded the time period of seven days allowed for debt collection. The foregoing analysis indicates that the receivable has not been managed efficiently.

CASH TURNOVER RATIO:

Cash is the most important current assets for the operations of the factory because it is, on the one hand, the basic input needed to keep the factory running on a continuous basis while on the other hand it is also the ultimate output expected to be realized by selling the product manufactured by it. The factory needs cash not only to purchase raw materials and to pay wages but also for payments of dividend, interest, taxes and countless other purposes. If it maintains a small cash balance, its liquidity position becomes weak and suffers from a scarcity of cash to make payments. On the other hand, if it maintains a high level of cash balance, it will have a sound liquidity position but forgone the opportunities to earn interest. Thus, the cash position of the factory is at optimum level to make payments due in the time. The test of liquidity of the factory is really the availability of cash to meet its obligations when they become due. In order to find out the cash position of the factory, the ratio of total cash and bank balance to sales has been calculated and analyzed in this study.

The cash turnover ratio shows the relationship between sales and cash and bank balance to evaluate the efficiency with which the available cash is utilized in the factory. It also shows that whether the available cash is properly managed or not for the smooth operation of the factory. It can be computed by net sales to cash and bank balance.

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

The following table shows the ratio of net sales to cash & bank balance of JCF during the period of study from 2052/53 to 2062/63.

Table – 4.5
"Cash Turnover Ratio" of JCF (2052/53 to 2062/63)

Rs. (In '000)

year	Sales	Cash & Bank	Turnover(in times)
2052/53	686568	28734	23.894
2053/54	688032	40293	17.075
2054/55	911377	41503	21.960
2055/56	960392	41854	22.946
2056/57	1020054	42975	23.736
2057/58	1192066	72975	16.450
2058/59	1177090	26885	43.782
2059/60	1161042	55924	20.761
2060/61	1136139	51258	22.165
2061/62	1153879	47937	24.071
2062/63	1088470	43382	25.090

Source: Annual reports of JCF from the years 2052/53 to 2053/54

The cash turnover ratio of the factory marketed a fluctuating trend during the period of study. It varied from 17.075 times in 2053/54 to 43.782 times in 2058/59 recording a range of 26.71 times. In the year 2053/54 it decreases from 23.894 times to 17.075 times due to slight increase in net sales having a larger increase in the cash & bank balance. Similarly, from the year 2054/55 it further improved to 21.960 times due to increase in net sales constituting a lower increase in the cash & bank balance. From the year 2054/55 to 2056/57, it continuously increased, again after this, in the year 2057/58 it decreases to 16.450 times with the increase in net sales accompanied with relatively larger increase in the cash & bank balance. From the year 2059/60, 2060/61, 2061/62 and 2062/63, the cash turnover ratio is increase during the year. Considering these facts, it may be inferred that the cash has not been managed efficiently.

ANALYSIS OF CASH CONVERSION CYCLE:

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 collections from sale of product and cash payments for resources acquired by the firm.

In a manufacturing firm, the operating cycle for element of cost, say direct material, starts with the purchase of materials. Materials are not consumed immediately. There involves raw materials conversion period (RMCP). Once materials are issued to production, it again involves time gap between issue of materials and production of finished product. This time gap is called as work in progress conversion period (WIPCP). Industries produce the output in the expectation of demand or for the purpose of assembly. Till the demand for finished product materializes; the product would remain in the store. This period is termed as finished goods conversion period (FGCP). The enterprise due to competitive reason and other reasons extend credit facilities to customers. This time gap between sale and realization of cash is known as average or receivable conversion period (ACP). Business enterprises receive credit in the purchase of raw materials from the suppliers. This period is called as payment deferral period (PDP). This payment deferral period reduces the length of operating cycle of business firm.

Now, the length of operating cycle of manufacturing firm can be calculated with the help of following formulae:-

Operating cycle (Gross Operating Cycle)	=	RMCP + WIPCP + FGCP + ACP
Cash Conversion Cycle (Net Operating Cycle)	=	Operating cycle - PDP
Cash Conversion Cycle	=	Inventory Conversion Period + Receivable Conversion Period - Payment deferral Period

[*Source: Management Accounting, Ravi M. Kishore, pg no. 17.7*]

To analyze the cash conversion cycle, first of all, the researcher has analyses the Inventory conversion period, receivable conversion period and payment conversion period then after the analysis of cash conversion period is made.

It is the task of finance manager to manage the operating cycle effectively and efficiently. The length of operating cycle is the indicator of operating management performance. The cash conversion cycle represents the time interval for which the firm has to negotiate for working capital from its bankers. It enables to determine accurately

the amount of working capital needed for the continuous operation of its activities. The operating cycle calls for proper monitoring of external environment of the business. Changes in government policies like taxation, import restrictions, credit policy of central bank, price trend, technological advancement etc. has their own impact on the length of operating cycle.

Table – 4.6
Cash Conversion Cycle of JCF (2052/53 to 2062/63)

(In days)

Year	Inventory Conversion Period(ICP)	Receivable Conversion Period(RCP)	Payable Deferral Period(PDP)	Cash Conversion Cycle(CCC)
2052/53	92	17	42	67
2053/54	80	36	75	31
2054/55	63	21	71	13
2055/56	62	15	76	1
2056/57	66	16	72	10
2057/58	63	12	66	9
2058/59	66	15	61	20
2059/60	72	12	59	25
2060/61	65	17	62	20
2061/62	60	16	60	16
2062/63	50	18	52	16

Source: Annual reports of JCF from the years 2052/53 to 2062/63

(a) Inventory Conversion Period:

Inventory Conversion Period indicates the efficiency of the firm in selling its product. It is calculated dividing the number of days in a year by inventory turnover. Inventory conversion period which shows how long the raw materials convert into finished goods and how much rapidly the inventory is turned into receivable through sales.

Table 4.6 shows the Inventory Conversion Period of Janakpur Cigarette Factory for the study period from 2052/53 to 2062/63. The Inventory Conversion Period of the factory, as indicated in table 4.6 marked a fluctuating trend during the period of study. It varied from 92 days in 2052/53 to 50 days in 2062/63 recording a range of 42 days.

(b) Receivable Conversion Period:

Receivable conversion period indicates the number of days debtors turnover into cash. It analyses collectibility of debtors and thus, the efficiency of collection effects and analysis ascertaining of the firm's corporate strength and advantage relative to its credit policy. It is one of the important financial tools for the measurement of cash conversion cycle. Generally, longer the collection period, the inefficient in the credit management and vice-versa. Receivable conversion period is calculated dividing the number of days in year (i.e. 365) by receivable turnover.

Table 4.6 shows the receivable Conversion Period to Janakpur Cigarette Factory for the study period from 2052/53 to 2062/63. The Receivable Conversion Period of the factory, as indicated in table 4.6 marked a fluctuating trend during the period of study. It varied from 12 days in 2057/58 to 26 days in 2053/54 recording a range of 14 days. The collection period of year 2055/56 and 2058/59, year 2056/57 and 2061/62, year 2052/53 and 2060/61 and year 2057/58 and 2059/60 are equal.

(c) Payable deferral/ conversion period:

Payable conversion period indicates the number of days of creditors turnover each in a year. It is an important financial tools of analysis which indicates the speed of creditors payable. A high payable conversion period is favorable for the company but too much higher period hampers the credit worthiness of the factory. A lower payable conversion period shows the firm repayment capacity and it increases the credit worthiness of the factory. It is calculated by dividing the sum of account payable and outstanding expenses by the sum of cost of sales and multiplies by the number of days in a year (i.e.365).

Table 4.6 shows the Payable Conversion Period of Janakpur Cigarette Factory for the study period from 2052/53 to 2062/63. The Payable Conversion Period of the Factory, as indicated in table 4.6 marked a increasing trend during the first four years and a declining trend during the remaining years of study. It varied from 42 days in 2052/53 to 76 days in 2055/56 recording a range of 34 days. During the first four years it continuously increased due to decreases in cost of sales accompanied by lower relative decreases in account payable. Similarly, during the 2055/56 it continuously decreased due to increase in cost of sales by lower relative increase in the account payable.

(d) Cash conversion cycle:

Cash conversion cycle is an important financial tool which shows how many times it takes to convert the receivable into cash, inventory turnover into cash and how much time it takes to repay its obligation. The cash conversion cycle is quick and convenient way to analyze the on going liquidity of the firm overtime. Although it does not show how risky the cash flows are, it does not focus on our main concern cash flows.

It is calculated by deducting the payable conversion period from the sum total of inventory conversion period and receivable conversion period.

Table 4.6 shows the Cash Conversion Cycle period of Janakpur Cigarette Factory for the study period from 2052/53 to 2062/63. The cash conversion period of the factory, as indicated in table 4.6 marked a decreasing trend in the year 2052/53 to 2055/56. Again during the year 2056/57 till the remaining years of study, it seems to be increase trend. It varied from 1 day in 2055/56 to 67 days in 2052/53 recording a range of 66 days. During the year 2052/53 to 2055/56 it decreased due to continuous decrease in inventory conversion period and receivable conversion period and increase in payable conversion period. Similarly, during the year 2055/56 to 2062/63, the cash conversion period is increased due to continuous increase in inventory conversion period and decreases in payable conversion period. The highest range of variation was in payable deferral period followed by inventory conversion period and cash conversion period. During the period of analysis the inventory conversion period was always longer than payable deferral period with a few expectations. These facts enable one to reach at a conclusion that there is an excessive investment in the inventory causing a delay in the payment of account payable. This not only increases the inventory carrying cost but also threatens the credit worthiness of the factory.

WORKING CAPITAL TURNOVER:

With an increase in sales volume, the investment in inventories and receivables also increases requiring a larger amount of net working capital. This makes it obvious that there is a close relationship between net sales and net working capital. The relationship between the two variables reflects the extent to which the business is operating on a small or a large amount of net working capital in relation to sales.

The working capital turnover establishes the relationship between net sales and net working capital. It is computed as follows:-

$$\text{Working Capital Turnover} = \frac{\text{Net sales}}{\text{Net working capital}}$$

The turnover of working capital (or ratio of net sales to net working capital) shows the number of times the net working capital is turned over in the course of an accounting year. It is used to test the efficiency with which the net working capital is being used by a firm. A high ratio indicates an efficient utilization of net working capital where as a low ratio is an indication of an inefficient utilization. A high ratio may be the result of favorable turnover of inventories and receivables while a low ratio may be the result of an excess of net working capital, a slow turnover of inventories and receivables,

or a large cash balance and investment of working capital in the form of temporary investments. There is no absolute standard for this ratio and so comparisons should be made with the ratios of past years and with similar ratios for the industry to make interpretation on relative terms. In general, a high working capital turnover is better than a low turnover, but a very high turnover of net working capital may not necessarily always imply a favorable position. It is because a very high turnover may also be the result of an inadequacy of net working capital.

The ratio of net sales to net working capital also gives an indication as to the situation of overtrading. The overtrading means a situation in which a company does more business than its finances allow. This situation occurs when the firm expands its scale of operations without an adequate background of liquid capital. On the other hand a low ratio may indicate a situation of under trading. The under trading may be the result of the fact that more funds are invested in a business that can be used to reasonable advantage.

The working capital turnover ratio of JCF has been presented in table 4.7 for the financial year 2052/53 to 2062/63

Table – 4.7
Working Capital Turnover Ratio of JCF
(2052/53 to 2062/63)

Year	Sales (net)	Working capital	Turnover (in times)
2052/53	686568	269816	2.54
2053/54	688032	197911	3.48
2054/55	911377	173527	5.25
2055/56	960392	149921	6.41
2056/57	1020054	171955	5.93
2057/58	1192066	201782	5.91
2058/59	1177090	194655	6.05
2059/60	1161042	237262	4.89
2060/61	1136139	274476	4.14
2061/62	1153879	87496	13.19
2062/63	1088470	46934	23.19

Source: Annual reports of JCF from the years 2052/53 to 2062/63

Table 4.7 shows that the working capital turnover ratio of JCF recorded upward tendency on 2061/62 and 2062/63 and an indefinite tendency during the remaining years of study. It varied from 2052/53 as 2.54 times and recording highest range to 2062/63 as 23.19 with difference of 20.65 times. From the year 2052/53, the working capital turnover ratio is starting at 2.54 times and increasing the trend to 2055/56, then the

decreasing at 2056/57 and 2057/58. in 2058/59 it again improved to 6.05 times resulting from a decrease in net sales at a lower rate than a decrease in net working capital. In the year 2059/60 and 2060/61, it again fell down to 4.89 times and 4.14 times because of a decrease in net sales as against an increase in working capital. In the last year of study, it increased highly trend compared than past years.

FUNDED DEBT TO NET WORKING CAPITAL RATIO

This ratio establishes the relationship between funded debt and net working capital. The funded debt refers to long term liability which comprises all debts the maturity of which are more than one year distant from the date of balance sheet. The net working is the excess of current assets over current liabilities. It represents the amount of current assets that has been supplied by the long term creditors and shareholders. The ratio of funded debt to net working capital is computed as follows:

$$\textbf{Funded debt to Net Working Capital Ratio} = \frac{\textbf{Funded Debt}}{\textbf{Net Working Capital}}$$

This ratio indicates the extent to which the net working capital is financed by long term-borrowed funds. The general principle for a sound financial condition is that the funded debt of a business enterprise should not exceed the net working capital. Thus, a ratio of 100 percent may be considered to be satisfactory. But in case the funded debt exceeds the net working capital, it implies that the firm has financed a part of fixed assets out of long term-borrowed funds. And if the funded debt is below the net working capital requirement is met out of the shareholders funds.

Table 4.8 shows the ratio of funded debt to net working capital of JCF for all period covered by the study.

Table – 4.8
Funded Debt to Net Working Capital Ratio of JCF
(2052/53 to 2062/63)

Rs.(in '000)

Year	Funded Debt	Net Working Capital	Ratio (in %)
2052/53	138277	269816	51.25
2053/54	142877	197911	72.19
2054/55	145229	173527	83.69
2055/56	123023	149921	82.06
2056/57	122796	171955	71.41
2057/58	72830	201782	36.09
2058/59	44733	194655	22.98

2059/60	67512	237262	28.45
2060/61	88094	274276	32.12
2061/62	48905	87496	55.9
2062/63	28160	46934	60.0

Source: Annual reports of JCF from the years 2052/53 to 2062/63

The funded debt to Net Working Capital ratio of the factory, as indicated in Table 4.8 marked a increasing trend during first five years and the decreasing trend during the remaining years of study. It varied from 22.98% in 2058/59 to 83.69% in 2054/55, recording a range of 60.71%. During the first five years it continuously increased due to increase in the funded debt accompanied with the decreases in the net working capital. Similarly, it decreases from the year 2055/56 to the year 2058/59 due to continuous decrease in the funded debt accompanied with the increase in net working capital. The ratio again improved in the year 2059/60 due to increase in funded debt accompanied with relatively lower increase in net working capital. During the period of analysis, it was always less than the standard norm (100%), which indicates that a part of net working capital requirement was met out of the shareholders funds. Thus, the practice of financing working capital of the factory is sound.

RATIO OF NET PROFIT TO NET WORKING CAPITAL

Ratio of net profit to net working capital shows the quantitative relationship between net profit and net working capital. This ratio examines the effects of working capital on profitability. It can be calculated in the following ways:-

$$\textbf{Return on Working Capital} = \frac{\textbf{Net profit}}{\textbf{Net Working Capital}} \times 100$$

Table – 4.9.1
Ratio of Net Profit to Net Working Capital
(2052/53 to 2062/63)

Year	Working Capital(X)	Net Profit (Y)	Ratio (%)
2052/53	269816	(80579)	(29.86)
2053/54	197911	(82727)	(41.80)
2054/55	173527	(49667)	(28.62)
2055/56	149921	(4665)	(3.11)
2056/57	171955	19291	11.21
2057/58	201782	67127	33.26
2058/59	194655	14130	7.26

2059/60	237262	14814	6.24
2060/61	274276	7125	2.60
2061/62	87496	17743	20.28
2062/63	46934	(9096)	(19.38)

Source: annual reports of JCF from the years 2052/53 to 2062/63

Co-efficient of Correlation
between net WC & net profit (r) = -0.145

Probable Error (P.Er.) = 0.20
6 P.E.(r) = 1.20

Regression Equation of Y on X is [Y= 1.2 – 0.10 X]

Regression Equation of X on Y is [X= 18.14 – 0.12Y]

Table 4.9.1 shows the ratio of net profit to net working capital of Jankapur Cigarette factory for the study period from 2052/53 to 2062/63. The ratio of net profit to net working capital of the Factory, as indicated in table 4.9.1, marked a fluctuating trend during the period of study. During the first four years and last year, there are negative ratios due to net loss in the factory. During the year, 2056/57 to 2061/62, the factory seems to be at profit stage. The co-efficient of correlation between net working capital and net profit is -0.145 which shows the negative relation position. The Probable Error (r) is 0.20. it seems to be the value of r is not at all significant. On the regression equation of Y on X and X on Y shows the relation between X and Y i.e. WC and net profit.

REGRESSION ANALYSIS:

The literal meaning of the word 'Regression' is stepping or returning back to the average value. The term was first developed by Sir Francis Galton in 1877. The regression is the statistical tool with the help of which we can estimate the unknown value of one variable from the known value of other variable. The variable whose value is given is called independent variable. Hence, regression determines the average probable change in one variable based on a certain amount of change in another.

If the curve obtained by plotting the two variables X and Y on graph is a straight line, then it is called the regression line and the relationship is linear. And algebric expression of the regression line is called the regression equations. There are two regression equations which are as follows:-

(a) Regression Equation of Y on X is: - Y= a + bx
(b) Regression Equation of X on Y is: - X= a + by

Table – 4.9.2
Regression Equation between Net Profit & Net Working Capital
(2052/53 to 2062/63)

Regression Equation of	Regression Equation	Value of a (constant)	Regression Co-efficient (b)
Y (net profit) on X (WC)	Y= 1.2-0.1X	1.2	-0.10
X (net WC) on Y (net profit)	X= 18.14-0.21y	18.14	-0.21

Table 4.9.2 shows the regression equations between net profit & net WC in JCF. The regression equation of net profit(Y) on net WC(Y) is Y= 1.2-0.1X. The negative 'b' i.e. 0.1 indicates that one thousand increase in net working capital leads to decrease in net profit by 0.1 thousand. Similarly, regression equation of net working capital (X) on net profit (Y) is, X= 18.14 – 0.217Y. The regression co- efficient (b) between net WC and net profit is -0.21 which indicates that one thousand increase in net profit leads to decrease in net WC by 0.21 thousand.

Fig. 9

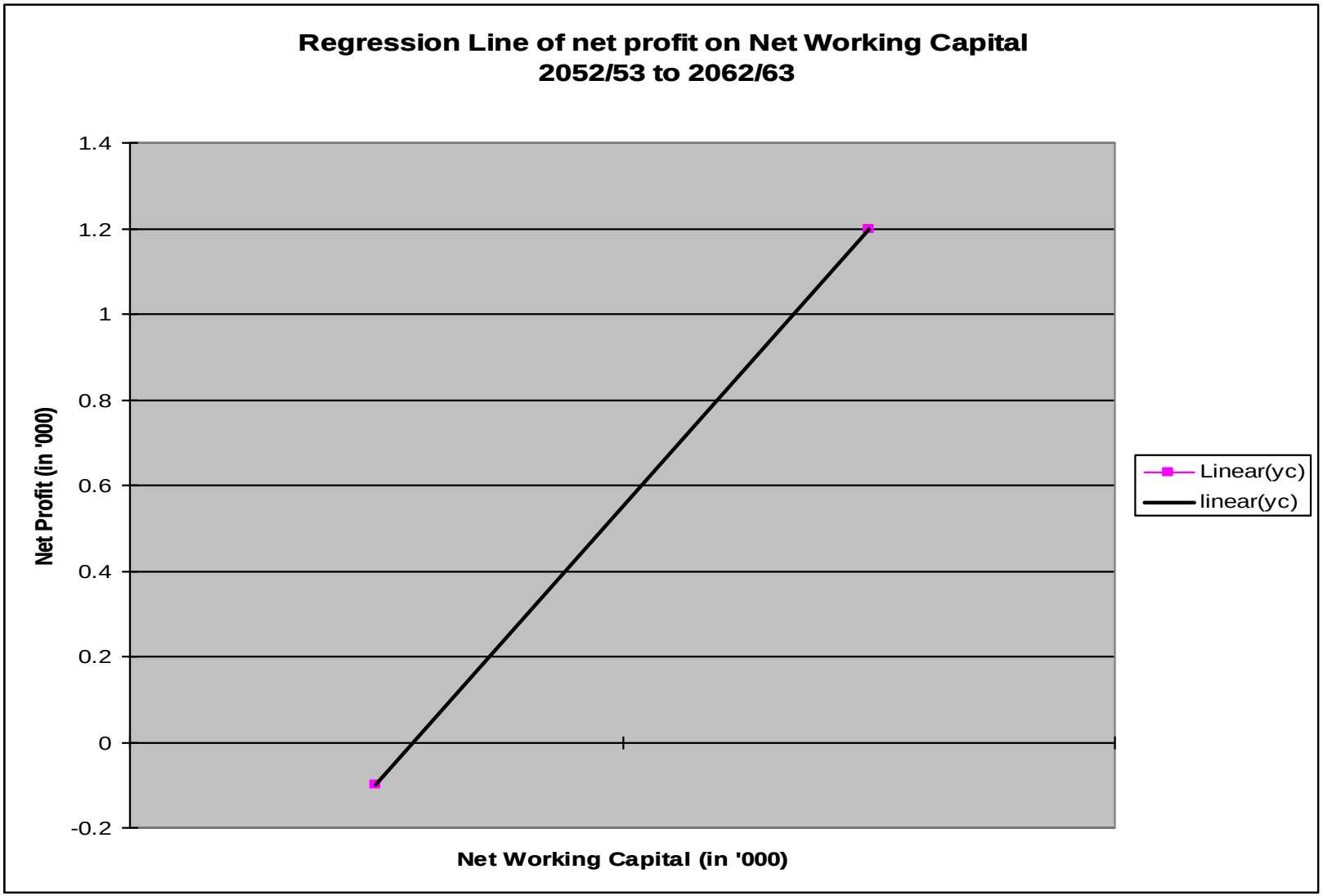

Regression Line of net profit on Net Working Capital
2052/53 to 2062/63
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
Net Profit (in '000)
Net Working Capital (in '000)
Linear(yc)
linear(yc)

Fig.10

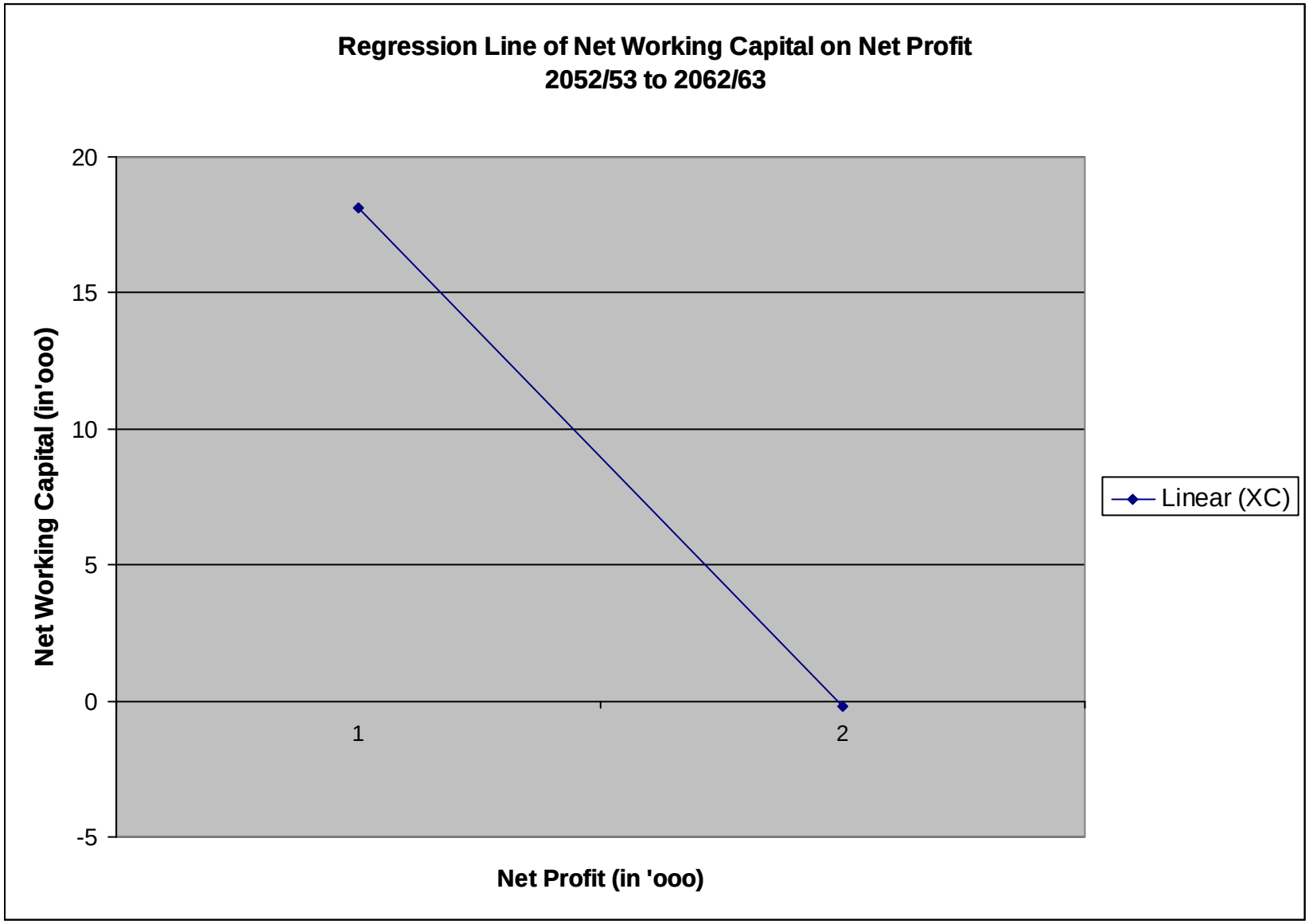

Regression Line of Net Working Capital on Net Profit
2052/53 to 2062/63
Net Working Capital (in'ooo)
20
15
10
5
0
-5
1
2
Net Profit (in 'ooo)
Linear (XC)

Table – 4.10
Comparative Statement of Net Working Capital of JCF
(2052/53 to 2062/63)

(In '000)

Particulars	052/53	053/54	054/55	055/56	056/57	057/58	058/59	059/60	060/61	061/62	062/63
Current Assets (CA)											
Cash & bank Balance	28734 (8)	40293 (11.1)	41503 (11.5)	41854 (11.8)	42975 (11.5)	72467 (17.8)	26885 (6.9)	55924 (13.3)	51258 (12.3)	47937 (14)	43382 (14)
Inventory	132832 (36.9)	132929 (36.5)	126329 (34.9)	127610 (36.1)	155422 (41.7)	153013 (37.5)	169994 (43.5)	178989 (42.5)	154652 (37.2)	143075 (41.7)	115292 (37.2)
Advance & prepaid	164844 (45.8)	140929 (38.7)	140350 (38.7)	142672 (40.4)	128551 (34.5)	142427 (34.9)	143605 (36.7)	146445 (35.8)	156436 (37.7)	103545 (30.1)	96681 (31.2)
Debtors & Receivables	33319 (9.3)	49607 (13.7)	54014 (14.9)	41311 (11.7)	45952 (12.3)	40149 (9.8)	50415 (12.9)	39959 (8.4)	52855 (12.8)	48906 (14.2)	54426 (17.6)
Total CA	359729	363758	362196	353447	372900	408056	390899	421317	415201	343463	309781
Trend percentage of current assets (base year 2052/53)	100	101.12	100.7	98.25	103.66	113.43	108.66	117.12	115.42	95.48	86.12
Current Liabilities(CL)											
Sundry Liabilities	89913 (63.9)	165846 (80.1)	188669 (81.8)	203526 (83.03)	200945 (82.31)	206274 (79.22)	196244 (74.26)	184055 (70.0)	140926 (61.6)	255968 (82.5)	262846 (90.2)
Provisions	50905 (36.1)	41248 (19.9)	42115 (18.2)	41606 (16.97)	43189 (17.69)	54095 (20.78)	68009 (25.74)	78557 (30.0)	88030 (38.4)	54410 (17.5)	28575 (9.8)
Total CL	140818	207094	230784	245132	244134	260369	264253	262612	228956	310378	291421
Trend Percentage of Current Liabilities Base year (2052/53)	100	147.06	163.9	174.08	173.4	184.9	187.7	186.5	162.6	220.4	206.95
Net WC= CA- CL	218911	156664	131412	108315	128769	147687	126646	158705	186245	33085	18360
Net WC (Base year 2052/53)	100	71.6	60.03	4905	58.8	67.46	57.8	72.5	85.08	15.11	8.4

Source: Annual reports of JCF from the years 2052/53 to 2062/63

Table 4.10 presents the trend percentages (or indices) of current assets, current liabilities and working capital (net) of JCF for the period covered by this study.

The current assets of JCF as shown in Table 4.10, recorded an irregular tendency during the period of study and as compared to that in 2059/60 varied from 117.12 percent to 2062/63 as 86.12 percent. Generally, the current assets included four terms as cash & Bank balance, Inventory, Advance and Pre-payments and Debtors & receivable. The Proportion of Inventories in total Current assets fluctuated from year to year. The other important part of current assets was advance and pre-payments which ranged from 45.8 percent in year 2052/53 to 31.2 percent in year 2062/63. The proportion of advance of pre-payments in total current assets also fluctuated from year to year. The third substantial constituent of current assets was Cash & Bank balance, which varied from 8 percent in year 2052/53 to 14 percent in year 2062/63. The proportion of Cash & Bank balance in total current assets also fluctuated from year to year. The fourth and last considerable content of current assets was debtors & receivables, which ranged from 9.3 percent in 2052/53 to 17.6 percent in year 2062/63. The proportion of debtors & receivables in total current assets also fluctuated from year to year.

The current liabilities of JCF marked a increasing tendency during the first six years but an decreasing in remaining years. The sundries liabilities varied from 63.9 percent in year 2052/53 to 90.2 percent in year 2062/63. The proportion of sundries liabilities in total current liabilities fluctuated during the year to year. The provisions fluctuated from 36.1 percent in year 2052/53 to 9.8 percent in year 2062/63.

The net working capital of JCF was towards decrease during the first five years of study. And, it varied on 8.4 percent in year 2062/63 as lowest condition of working capital.

FUNDS FLOW ANALYSIS:

The statement of sources and uses of funds in JCF is prepared and analyzed in this section. A funds flow statement (also known as a sources and uses of funds statement or a statement of changes in financial position) is a valuable aid to a financial manager or a creditor in evaluating the uses of funds by a firm and in determining how the firm finances those uses. It is also known as the analysis of inflows and outflows of funds during a certain period of time in the past or future. The projected statement of sources and uses of funds based on financial statement is an essential part of financing planning and controlling process. It helps to know where the funds were collected from and how they were utilized in the past.

Analysis of sources and uses of funds is designed to highlight the changes in the financial condition of JCF between two period of time. It is an operating statement as it summarizes the financial activities for a period of time. From the analysis, one can see the sources and uses of fund during the study period of JCF. It also discloses relative importance of each of the sources and uses.

Sources of Funds:

All the changes that cause increase in fund of the corporation are regarded as sources and analyzed one by one below:-

(a) Loan fund raised
(b) Decrease in working capital
(c) Sale of investment
(d) Funds from operation
(e) Sales of fixed assets

Uses of Funds:

All the changes that cause decrease in total funds of the corporation are regarded as use of funds and analyzed one by one below:-

(a) Loss from operation
(b) Repayment of loans
(c) Addition to Investment
(d) Purchase of fixed assets
(e) Increase in working capital

Table – 4.11
Sources and Uses of Funds of JCF
(2052/53 to 2062/63)

(In '000)

Particulars	052/53	053/54	054/55	055/56	056/57	057/58	058/59	059/60	060/61	061/62	062/63
Sources of Funds											
Loan raised	52830	4600	2352	-	-	-	-	22779	20582	-	-
Decrease in working capital	56639	62248	22127	23097	-	-	21041	6465	-	153160	14725
Sales of Investment	-	-	68223	-	4282	-	3487	-	4297	1827	5160
Funds From Operation	-	-	-	5054	16396	78501	3569	4546	47310	-	-
Sales of Fixed Assets	-	-	-	-	-	-	-	-	-	-	-
Total:	109469	66848	92702	28151	20678	78501	28097	33790	72819	154987	19885
Uses of Funds											
Loss from Operation	67135	62804	92702	-	-	-	-	-	-	112172	17028
Repayment of Loan	-	-	-	22206	227	49966	28097	-	45279	42815	-
Additional Investment	13444	4044	-	5945	-	9614	-	668	-	-	-
Purchase of Fixed Assets	28890	-	-	-	-	-	-	-	-	-	2857
Increase in working capital	-	-	-	-	20451	18921	-	33122	27540	-	-
Total:	109469	66848	92702	28151	20678	78501	28097	33790	72819	154987	19885

Source: Annual reports of JCF from year 2052/53 to 2062/63

Table 4.11 shows that the major source of funds of the factory during the period of Analysis from 2052/53 to 2062/63. The working capital decrease from 2052/53 to 2055/56 followed by increase in long term loan and decrease in long term investment. The working capital decrease Rs. 153160 thousands in the year 2061/62. The factory purchased the fixed assets in year 2052/53 and 2062/63. The funds lost in operation from the year 2052/53 to 2054/55 and also the remaining years as 2061/62 and 2062/63. The funds increase in year from 2055/56 to 2060/61. The factory sold the investment as maximum times in study period than purchase the investment. Thus, the changes that have taken place in the working capital position of the factory have weakened its financial position (short as well as long term).

MAJOR FINDINGS OF THE STUDY

The major findings of the study may be summed up as follows:

1. The absolute amounts of current assets and current liabilities of JCF registered an indefinite trend during the period of study from 2052/53 to 2062/63. The standard deviation and its co-efficient for current assets were 32.04 thousands and 0.0859 respectively. While for current liabilities these were 46.03 thousands and 0.2416 respectively. The greater co-efficient of standard deviation for current liabilities indicates that the factory's current liabilities varied more than its current assets. There was low degree of negative correlation and suggests that the factory has followed fairly uniform policy to finance current assets and current liabilities. The current ratio in 1st year of study is higher than other remaining years. The standard ratio (2:1) maintained in remaining ratio. All these facts lead one to conclude that the short-term financial position of the factory is sound from the creditors point of view.

2. The absolute amounts of quick assets and current liabilities of the factory, registered indefinite trends during the period of study from 2052/53 to 2062/63. The linear co- efficient of correlation between quick assets and current liabilities comes to -0.36 which indicates that the two variables have low degree of negative correlation and suggests that the factory has followed uniform policy of financing quick assets and current liabilities. The standard deviations in quick assets and current liabilities are Rs. 43.13 thousands and Rs. 46.03 thousands, respectively whereas the co-efficient of standard deviations for quick assets and current liabilities are 0.31 and 0.24 respectively. The co-efficient of standard deviations

of quick assets and current liabilities are less variance indicating that better in future years also. Obviously, it was always less than the standard ratio of 1:1 during the last nine years of study. Hence, the liquid financial position of the factory was satisfactory during the first two years but it became seriously weak during the remaining years of study.

3. During the period of study, the ratio of average inventory to cost of sales fluctuated from 3.966 times in the year 2052/53 to 6.518 times in the year 2062/63. During this period, the cost of sales to average inventory low increasing and decreasing times because inventory has not been managed efficiently. It was always below the generally accepted ratio of 7 or 8 times during the period of analysis.

4. The debtors turnover ratio of the factory marked a fluctuating trend in the period of study. It varied from 13.869 times in 2053/54 to 29.691 times in 2057/58 recording a range of 15.882 times. While during the year 2053/54 it decreases with high range as compared with 2052/53 due to slight increase in sales in comparison to the higher increase in debtors. After the year 2059/60, the debtors turnover ratio is decreasing trends in JCF. Likewise, the average collection period also recorded fluctuating trend varying from 12 days in 2059/60 to 26 days in 2053/54. It always exceeded the time period of seven days allowed for debt collection. The foregoing analysis indicates that the receivable has not been managed efficiently.

5. The cash turnover ratio of the factory marketed a fluctuating trend during the period of study. It varied from 17.075 times in 2053/54 to 43.782 times in 2058/59 recording a range of 26.71 times. In the year 2053/54 it decreases from 23.894 times to 17.075 times due to slight increase in net sales having a larger increase in the cash & bank balance. Similarly, from the year 2054/55 it further improved to 21.960 times due to increase in net sales constituting a lower increase in the cash & bank balance. From the year 2054/55 to 2056/57, it continuously increased, again after this, in the year 2057/58 it decreases to 16.450 times with the increase in net sales accompanied with relatively larger increase in the cash & bank balance. From the year 2059/60, 2060/61, 2061/62 and 2062/63, the cash turnover ratio is increase during the year. Considering these facts, it may be inferred that the cash has not been managed efficiently.

6. The Cash Conversion Cycle period of Janakpur Cigarette Factory for the study period from 2052/53 to 2062/63.The highest range of variation was in payable deferral period followed by inventory conversion period and cash conversion period. During the period of analysis the inventory conversion period was always longer than payable deferral period with a few expectations. These facts enable one to reach at a conclusion that there is an excessive investment in the inventory causing a delay in the payment of account payable. This not only increases the inventory carrying cost but also threatens the credit worthiness of the factory.

7. Working capital turnover ratio of JCF recorded upward tendency on 2061/62 and 2062/63 and an indefinite tendency during the remaining years of study. It varied from 2052/53 as 2.54 times and recording highest range to 2062/63 as 23.19 with difference of 20.65 times. From the year 2052/53, the working capital turnover ratio is starting at 2.54 times and increasing the trend to 2055/56, then the decreasing at 2056/57 and 2057/58. in 2058/59 it again improved to 6.05 times resulting from a decrease in net sales at a lower rate than a decrease in net working capital. In the year 2059/60 and 2060/61, it again fell down to 4.89 times and 4.14 times because of a decrease in net sales as against an increase in working capital. In the last year of study, it increased highly trend compared than past years.

8. The ratio improved in the year 2059/60 due to increase in funded debt accompanied with relatively lower increase in net working capital. During the period of analysis, it was always less than the standard norm (100%), which indicates that a part of net working capital requirement was met out of the shareholders funds. Thus, the practice of financing working capital of the factory is sound.

9. The ratio of net profit to net working capital of Jankapur Cigarette factory for the study period from 2052/53 to 2062/63. The ratio of net profit to net working capital of the Factory, as indicated in table 4.9.1, marked a fluctuating trend during the period of study. During the first four years and last year, there are negative ratios due to net loss in the factory. During the year, 2056/57 to 2061/62, the factory seems to be at profit stage. The co-efficient of correlation between net working capital and net profit is -0.145 which shows the negative relation position. The Probable Error (r) is 0.20. it seems to be the value of r is not at all significant. On the regression equation of Y on X and X on Y shows the relation between X and Y i.e. WC and net profit. These facts make it clear that the cost of

working capital is more than the revenue generated out of such capital. As such, there is negative effect of working capital on profitability of the factory.

10. The regression equations between net profit & net WC in JCF. The regression equation of net profit(Y) on net WC(Y) is Y= 1.2-0.1X. The negative 'b' i.e. 0.1 indicates that one thousand increase in net working capital leads to decrease in net profit by 0.1 thousand. Similarly, regression equation of net working capital (X) on net profit (Y) is, X= 18.14 – 0.217Y. The regression co- efficient (b) between net WC and net profit is -0.21 which indicates that one thousand increase in net profit leads to decrease in net WC by 0.21 thousand.

11. The current assets of JCF as shown in Table 4.10, recorded an irregular tendency during the period of study and as compared to that in 2059/60 varied from 117.12 percent to 2062/63 as 86.12 percent. Generally, the current assets included four terms as cash & Bank balance, Inventory, Advance and Pre-payments and Debtors & receivable. The current liabilities of JCF marked an increasing tendency during the first six years but a decreasing in remaining years. The net working capital of JCF was towards decrease during the first five years of study. And, it varied on 8.4 percent in year 2062/63 as lowest condition of working capital.

12. The funds increase in year from 2055/56 to 2060/61. The factory sold the investment as maximum times in study period than purchase the investment. Thus, the changes that have taken place in the working capital position of the factory have weakened its financial position (short as well as long term).

CHAPTER – V

Summary, Conclusions and Recommendation

The cigarette industry in Nepal was formerly constituted of four units- Nepal Cigarette Factory, Nepal Tobacco Company, Janakpur Cigarette Factory and Surya Tobacco Company – located at Birgunj, Hetauda, Janakpur and Birgunj respectively. But later on the first two units were closed due to various problems. At present this industry consists of only two units- Janakpur Cigarette factory (JCF) and Surya Tobacco Company (STC) with a total installed production capacity of 8 arab and 25 crore sticks per annum. The share of JCF in the total production is about 64 percent whereas that of STC is about 36 percent. The former is a public sector undertaking while the latter is a private one.

The cigarette industry is one of the major import substitution Industries of Nepal. This industry meets the national demand of cigarette in full and thus gives a shoulder in improving the country's balance of payment situation by substituting the import of cigarette and saving the scarce and valuable foreign exchange. It contributes significantly to tax revenue and provides employment opportunity for a large number of rural people. Over and above, it has benefited many others in numerous ways. In order to ensure the full advantage, its efficient operation which requires proper management is absolutely essential. Without an appraisal of performance of the management, no inference can be drawn as to whether or not it is managed properly. Out of the various functional areas of management, the financial is a key one. As the working capital management is one of the most important aspects of financial management, the present study attempts to appraise the performance of working capital management of Janakpur Cigarette Factory.

The study has been undertaken with an objective of evaluating the performance of working capital management of JCF. In particular, it aims at assessing the working capital condition, measuring the efficiency in utilization of inventory, account receivable and cash, appraising the financing pattern of working capital, examining the effects of working capital on profitability and presenting and analyzing the sources and uses of funds of the factory. In addition, it is also intended to suggest the remedial measures wherever found necessary.

The study covers a period of 11 years (from F/Y 2052/53 to 2062/63) and is based mainly on secondary data. The data required for the study have been obtained from reliable sources. Such data after proper recasting and condensation have been arranged in different tables needed for the fulfillment of stated objectives. In order to analyze the data, the financial techniques like ratio analysis, trend analysis, funds flow analysis, and cash conversion cycle have been applied. In addition, the statistical tools like percentage, average, range, standard deviation, correlation, regression and index number have also

been used fore making the analysis more systematic, scientific and useful. Both analytical and descriptive approaches have been followed to make the study more revealing.

The entire study has been divided into five major chapters. The first chapter gives a general introduction of the subject matter while in the second chapter the pertinent literature and studies have been reviewed making logical and meaningful groupings. The third chapter devises the research methodology adopted in carrying out the study whereas in the fourth chapter the relevant data have been presented and analyzed with the help of financial and statistical tools. The fifth and last chapter gives summary, conclusions and recommendation for ameliorating the working capital of the factory concerned.

In the light of foregoing discussion and conclusions some glaring recommendation may be offered as follows:

1. JCF should boost up the sales volume by improving the quality of cigarettes, reducing the prices reasonably, proving due credit facilities to the retailers and making proper advertisement.

2. The target sales and production volumes of the factory should be determined after a careful survey of the market. If there are negative deviations in actual sales and production volumes from the targeted ones, the causes of such deviations should be sought for and necessary remedial measures should be taken immediately.

3. The optimum level of raw materials required for the target production should be determined in advance and maintained accordingly for ensuring economical and smooth running of production activities.

4. The factory needs a suitable cost system for controlling the operating cost and thereby providing a reasonable return on working capital employed.

5. The owner’s funds need to be injected into the factory to replenish the erosion of funds caused by frequent losses in past years. The use of owner’s funds to meet working capital requirement would not only strengthen the liquidity but also enhance the profitability of the factory.

6. In order to reduce the unit operation cost and increase the rate of return on working capital employed, the factory needs to harness full installed capacity.

As the study has been undertaken with some specific objectives, it does not claim to have looked into all the problems that face the factory management. However, it has at least covered the working capital management, which is one of the vital aspects of the financial management. But due to various constraints inter-firm comparative study could not be pursued even on this aspect. All there aspects call for an in depth probe for ameliorating the performance of the factory.

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APPENDICES

Income Statement of JCF
(Fiscal year 2052/53 to 2062/63)

Particulars	052/53	053/54	054/55	055/56	056/57	057/58	058/59	059/60	060/61	061/62	062/63
Net Sales	686568	688032	911377	960392	1020054	1192006	1177090	1161042	1136140	1153879	1088470
Less: Cost of sales	(602703)	(606175)	(754143)	(751492)	(777252)	(894064)	(898266)	(885485)	(864831)	(863828)	(841999)
Gross Profit	83865	81857	157234	208900	242802	298002	278824	27557	271309	290051	246471
Less: Operating Expenses	(154384)	(169445)	(183277)	(193885)	(204894)	(233784)	(255419)	(248952)	(249579)	(255756)	(224216)
Operating profit/loss	(70519)	(87588)	(26043)	15015	37908	64218	23405	26605	21730	34295	22255
Add: Non-operating Income	6914	34076	4496	8511	7404	18130	7827	7839	9020	6115	8239
Profit/loss before interest & tax	(63605)	(53512)	(21547)	23526	45312	82348	31232	34444	30750	40410	30494
Less: Interest	(16974)	(29215)	(28120)	(28191)	(26021)	(15221)	(12392)	(14709)	(13611)	(10759)	(11463)
Profit/loss before tax	(80579)	(82727)	(49667)	(4665)	19291	67127	18840	19735	17139	29651	19031
Less: provision for tax	-	-	-	-	-	-	(4710)	(4934)	(2375)	(5198)	(2665)
Net profit/loss	(80579)	(82727)	(49667)	(4665)	19291	67127	14130	14801	14764	24453	16366

Balance Sheet of JCF
(Fiscal year 2052/53 to 2062/63)

Particulars	052/53	053/54	054/55	055/56	056/57	057/58	058/59	059/60	060/61	061/62	062/63
Liabilities Side											
Share capital	40837	40837	40837	40837	40837	40837	40837	40837	40837	40837	40837
Reserve & surplus	301558	230875	128945	132051	142976	215633	216808	221324	217242	150044	133014
Net worth	342395	271712	169782	172888	183813	256470	257645	262161	258079	190881	173851
Long term loan	138277	142877	145229	123023	122796	72830	44733	67512	88094	-	-
Current Liabilities	89913	165847	188669	203526	200945	206274	196244	184055	140926	255968	262847
Provisions	50905	41248	42115	41606	43189	54095	68009	77524	88031	54410	28575
Total:	621490	621684	545795	541043	550743	589669	566631	591252	575130	501259	465273
Assets side											
Fixed assets	87855	79976	73872	71924	66453	60609	58215	51750	46671	46365	49222
Investment	173906	177950	109727	115672	111390	121004	117517	118185	113257	111430	106270
Current Assets											
Cash & bank balance	28734	40293	41503	41854	42975	72467	26885	55924	51258	47937	43382
Inventory	132832	132929	126329	127610	155422	153013	169994	178989	154651	143075	115292
Advance & prepaid	164844	140929	140350	142672	128551	142427	143605	146445	156436	103545	96681
Debtors and receivable	33319	49607	54014	41311	45952	40149	50415	39959	52857	48907	54426
Total:	621490	621684	54014	541043	550743	589669	566631	591252	575130	501259	465273