The Journal of Sri Krishna Research & Educational Consortium

ASIA PACIFIC JOURNAL OF RESEARCH IN BUSINESS MANAGEMENT

Internationally Indexed & Listed Referred e-Journal

A STUDY ON WORKING CAPITAL ANALYSIS OF KAKATIYA CEMENT SUGAR AND INDUSTRIES LTD

PROF K. RAMAKRISHNAIAH*; MR N.VENKATARAMANA; MR .SMD. AZASH*****

*Professor, Department of Commerce,
Sri Venkateswara University, Tirupati,
Andhra Pradesh, India.
**Assistant Professor, Department of Business Administration,
Annamacharya PG College of Management Studies,
New Boyanapalle, Rajampet, Kadapa (Dt) – 516126,
Andhra Pradesh, India.
***Assistant Professor,
Annamacharya Institute of Technology and Sciences,
New Boyanapalle, Rajampet, Kadapa (Dt) – 516126,
Andhra Pradesh, India.

ABSTRACT

Management of working capital is one of the most important and key resource of an organization for carrying out for its day to day operations. In this paper an attempt is made to assess the significance of working capital by selecting the two important financial ratios such as working capital, total assets to sales ratio and debtors to sales and to determine relationship between current assets and current liabilities, to carried out set objectives, data were collected from the financial reports of the company from 2000-01 to 2009-10 ,it was found that the position of current ratio, acid test ratio, working capital ratio, inventory turnover ratio are satisfactory because these ratios are exceed the standard bench mark and there is a positive relationship between current assets and current liabilities(r =+0.47).

.

KEYWORDS: *Acid Test Ratio, Current Ratio, Debtors to Sales Ratio, Inventory Turnover Ratio, Total Assets to Sales Ratio Working Capital.*

INTRODUCTION

Management of working capital is one of the most important and key recourse of an Organization for caring for its day to day operations. Working capital can be taken as funding

resource for routine of business. It is the most vital and important part of fund management and profitability for business. It may be needless to maintain that without proper management it is an art, which can only be excelled through proper study and scenario analysis. It can also be generated by numerous short term funding resource and short term credit and loans.

The major common source contributing to working capital of an enterprise may be categorized as trade credits extended by suppliers, advances by discounting of bills, Bank overdrafts from state government reserves and reserve funds, subsidies grants and contribution from central and state government borrowings etc. As already stated, management of working capital is a vital dimension in determining profit and growth of an enterprise. It's planning and projection needs careful integration of target of designing the working capital structure is taken up which is described with the objective of minimizing the cost of working capital, thus reducing the burden of cost of working capital of profit. The optimally designed capital structure not only guards solvency of the company but also enriches by protecting its cash outflow.

As already mentioned, it is extremely important that optimally designed working capital should be adequate enough to steer the organization to its target at minimum cost. Designing adequate optimum working capital structure is not only the liability of managers of the company but also an honest duty towards the holders of the company. Adequate and optimum, working capital add to economic value aided of the organization. This increase in the economic value of the company not only adds to earning per share of the company but also yields to increase in goodwill market value and creditability of the company. The increase in credibility and goodwill of the company can be further used for generating low cost funds from market and also for gaining better credit turn overrate. The above scenario clearly highlights the fact from market and also for gaining better credit turnover ratio. The above scenario clearly highlights the fact that optimum or adequate capital not only improves profitability of the company but also develops its own cycle of perpetual earning for the company.

One most important aspect to be considered in deciding the working capital is to arrive at reliable estimate of requirement of funds which can be made by systematic historic study and futuristic projections and estimates. The reference of bench moved scenario across the industry should also be referred to verify the efficiency of working capital requirements of the industry. Gathering excess funds than the requirement not only leads to high cost of capital but also results in opportunity loss of growth by employing the fund move economically. Similarly, insufficient working capital may result in scarcity of funds resulting in loss of opportunity of business, profit and value.

JUSTIFICATION OF THE STUDY (NEED OF THE STUDY)

The working capital management refers to management of the working capital or to be precise, the management of current assets. A firms working capital consist of its investments in current assets which include short term assets such as cash and bank balance, inventories, receivables and marketable securities. So the working capital management refers to the management of the level of all those individual current assents. The need of working capital management arises from two considerations-first existence of working capital is imperative in any firm. The fixed assets, which usually require large funds, can be used at an optimum level only if supported by

sufficient working capital and the second; the working capital involves statements of funds of the firm. If the working capital level is not properly maintained and managed, then it may result in unnecessary blocking of scare resources of the firm. The insufficient working capital, on the other hand, puts different hindrances in smooth working of the firm. Therefore, the working capital management needs attention of all the financial managers and need for working capital to run business activities need not overemphasized. One can hardly find a business enterprise which does not require any amount of working capital. A company with sufficient working capital is always in a position wait for better market position. Further, the adequacy of working capital contributes a lot in raising the credit standing of a corporation because of better credit items, reduced cost of production on account of the receipt of cash discounts, favorable rates of interest on bank loans etc. Form profitability may be increased as more working capital is added to the fixed capital, provided the firm does not exceed 100 percent capacity. In this article, a modest effort has been made to analyze the working capital management of KCS&I LTD during the period of 2000-2001 to 2009-2010.

OBJECTIVES OF THE STUDY

- To assess the significance of working capital by selecting few important parameters such as working capital assets, total assets to sales ratio, receivables to sales.
- To make item wise analyses of the element or components of working capital and to identify the items responsible for changes in working capital.
- To study the relationship between current asset and current liabilities of KCS&I LTD.

HYPOTHESIS OF THE STUDY

Hypothesis is a tentative generalization, the validity of which remains to be tested. However, hypothesis is generally based on the assumption. In this study, following hypothesis is taken:

1. Liquidity position of KCS&I LTD is satisfactory.
2. There is a positive relationship between current and current liabilities.
3. The overall position of working capital of KCS&I LTD is satisfactory.

METHODOLOGY OF THE STUDY:

The date of KCS&I LTD for the year (2000-01 to 2009-10) used in this study have been taken from secondary sources e.g. published annual reports of the company. Editing, classification and tabulation of the financial data, which have been collected from above mentioned source, have been done as per the requirement of the study. For assessing the performances of the working capital position in this study, the technique of ratio analysis have been used. The collected data have been analyzed in four ways:

(I) Analysis of liquid position.

(II) Item wise analysis of components of gross working capital.

(III) Liquidity ranking.

(IV) Analysis of Liquidity ratio.

For assessing the behavior of ratio, statistical techniques have been used e.g. Mean, growth rate and coefficient of variation in this study.

ANALYSIS

Working capital is the life blood and never center of a business just like circulation of blood is essential in the human body for survival. It is essential to maintain the smooth running of a business. No business can run successfully without an adequate amount of working capital. However, it must also be noted that excess working capital and shortage of working capital both are dangerous for the business. Keeping this view in mind, the working capital position of KCS&I LTD are analyzed by ratio analysis technique although working capital position can be analyzed by three important techniques which are (I) Ratio analysis, (II) funds flow analysis and (III) working capital analysis technique. In this study, working capital is analyzed by ratio analysis technique. For this purpose, certain ratios are calculated like current ratio, acid test ratio, absolute ratio, inventory and receivable turnover, payable turnover, working capital turnover ratio etc.

TABLE-I: LIQUIDITY POSITON OF KSC&I Ltd

(FROM 2000-2001 TO 2009-2010) (RS IN CRORES)

Year	Current Assets (RS.)	Liquid assets (RS.)	Current Liabilities (RS.)	Working Capital (RS.)	Increase/decrease working capital
2000-2001	86.77	31.76	19.51	67.26	-
2001-2002	97.02	26.61	24.25	72.77	5.51
2002-2003	118.07	27.02	26.97	91.10	18.33
2003-2004	98.29	30.36	16.62	81.67	(-)9.43
2004-2005	66.07	30.24	13.27	52.80	(-)28.87
2005-2006	65.37	36.79	29.31	36.06	(-)16.74
2006-2007	88.38	35.09	35.30	53.08	17.02

2007-2008	113.84	50.98	39.62	74.22	21.14
2008-2009	103.94	76.41	40.93	63.01	(-)11.21
2009-2010	103.72	91.26	40.88	62.84	(-)0.17
Mean	94.147	43.652	28.666	65.481	
Growth rate	19.53%	187.34%	109.53%	- 6.57%	

Source: Annual Reports of KCS&I Ltd From 2001 To 2010

LIUIDITY POSITION OF KCS&I LTD

Liquidity refers to the ability of the concern to meet its current obligations as and when these become due. If current assets can pay of current liabilities, then the liquidity position is considered to be satisfactory and if it is not so, the position is not satisfactory. The liquidity position of KCS&ILTD is presented in Table no. 1. It is observed from the table that current assets have been increased from 86.77 to 118.07 crores between 2000-01 to 2009-2010 and after that, current assets had decreased to 65.37 crores in the year 2005-2006. In the year 2006-2007, the current assets again increased to 88.38 crores, in the year 2007-08, it again increased to 113.84, in 2009-10, current assets decreased to 103.72 crores. The mean position of current assets was 94.147 crores. Current assets registered a growth of 19.53% which shows that they increased consistently during the period of study.

Liquid assets had increased from 31.76 to 91.26 crores during the study period 2000-01 to 2009-10. It has been seen that liquid assets decreased to 26.61 in the year 2001-02. After that liquidity assets were gradually increased up to 2009-10. The mean position of liquid assets was 43.652 and its growth rate was 187.34 %.

Current liabilities had increased from 19.51 crores to 40.93 crores during the study period from 2000-01 to 2009-10. It increased to 24.25 crores and 26.97 crores in the year 2001-02 and 2002-03 respectively. In the year 2004-2005, the current liabilities decreased to13.27 crores. From 2005.06 current liabilities were gradually increased to 2008-09 and the mean position of it was 28.666 crores as the growth in current liabilities was 109.53%.

Working capital showed a fluctuating trend. It was high during the year 2007-08 when it was 74.22 crores and the least 36.06 crores in the year 2005-06. There was high variance in the working capital. The mean position of working capital was 65.481 crores and its average growth rate was (-) 6.57 %.

TABLE-II: COMPONENTS OF WORKING CAPITAL WITH RESPECTIVE PERCENTAGE OF KCS & I LTD.

Year	Inventory to Gross working Capital (%)	Debtors to gross working capital (%)	Cash& Bank to gross working Capital (%)	Loan & Advance to Gross working capital (%)	Fixed deposits to gross working capital (%)
2000-01	63.39	9.02	2.50	21.02	4.04
2001-02	72.57	6.99	0.72	16.08	3.61
2002-03	77.11	8.07	1.68	10.09	3.02
2003-04	69.11	7.29	2..00	17.60	3.98
2004-05	54.23	12.44	2.00	23.55	6.44
2005-06	43.72	20.17	3.32	24.46	8.71
2006-07	60.29	12.76	2.92	17.70	6.01
2007-08	55.21	11.15	3.21	20.48	4.71
2008-09	26.48	10.12	8.42	37.89	13.57
2009-10	12.01	11.17	3.48	41.92	0.00
MEAN	53.41	10.91	2.82	23.07	5.40

Source: Annual Reports of KCS&I Ltd From 2001 To 2010

COMPOSTITION OF GROSS WORKING CAPTIAL

An element wise analysis of gross working capital enables one to examine the elements in which the gross working capital funds are locked up and to find out the factor responsible for the significant changes in working capital of different years. In the Table no. II, the share of each element has been calculated separately for each of the year and average share percentage for all years has also been calculated. Out of the five elements of working capital, the element, namely inventory contributed the highest i.e. 53.41% where as debtors contributed the 10.91%. On the other hand, loans and advances constituted 23.07% of gross working capital whereas cash and bank to gross working capital constituted 2.82%. Fixed deposit contributed the 5.40%.During the

study period; there has been a remarkable change in share of different elements of working capital. The inventory to working capital percentage fluctuated from 12.01% to 77.11%. It was highest during the year 2002-2003 and lowest in the period of 2009-2010. A large tie up of funds in inventory adversely affects the profitability of the concern due to carry over costs. Debtors, which is another element of working capital increased from 6.99% to 20.17%. High volatility was seen in debtors during the study period. The share of cash and bank in gross working capital least 0.72% in the year 2001-02 and highest 8.42% in the year 2008-09. The table shows that the company is maintaining less cash and bank throughout the period of study and this adversely affected the profitability of the company. Share of loan and advance in gross working capital was highest in the year 2009-10, 41.92% and least 10.09% in the year 2002-03.share of fixed deposits in gross working capital was highest13.57%in the year 2008-09and zero in the year 2009-10

TABLE – III: STATEMENT OF LIQUIDITY RANKING OF KCS&I

Year	Inventory To Current Assets	Receivable To Current Assets	Cash and Bank to Current Assets	Loan and Adv. To Current Assets	Fixed deposit to current assets	Liquidity Rank					Total Rank	Ultimate Rank
	1	2	3	4	5	1	2	3	4	5		
2000-01	63.39	9.02	2.51	21.02	4.04	7	7	7	5	6	32	7
2001-02	72.57	6.99	0.72	16.08	3.61	9	10	10	9	8	46	9
2002-03	77.11	8.07	1.68	10.09	3.02	10	8	9	10	9	46	10
2003-04	69.11	7.29	2.00	17.60	3/98	8	9	8	8	7	40	8
2004-05	54.23	12.44	3.32	23.55	6.44	4	3	4	4	3	18	4
2005-06	43.72	20.17	2.92	24.46	8.71	3	1	6	3	2	15	2
2006-07	60.29	12.76	3.21	17.70	6.01	6	2	5	7	4	24	5

2007-08	55.21	11.15	8.42	20.48	4.71	5	5	3	6	5	24	6
2008-09	26.48	10.12	11.92	37.89	13.57	2	6	2	2	1	13	1
2009-10	12.01	11.17	34.89	41.92	0.00	1	4	1	1	10	17	3

Source: Annual Reports of KCS&I Ltd From 2001 To 2010

LIQUIDITY RANKING

The liquidity position of a firm is largely affected by the composition of working capital in as much as any considerable shifts from the relatively more current assets to the relatively less current or vice versa, will materially affect a firm's stability to pay its current debts prompt. Therefore to determine the liquidity position of the KCS&I LTD more precisely, a comprehensive test has been made in Table No. III. A process of ranking has been used to arrive at a more comprehensive measure of liquidity in which five factors – namely inventory to current assets ratio, cash and bank to current assets and debtors to other current assets including loans and advances and fixed deposits to current assets ratio have been combined in a points score. In case of debtors to current assets ratio, cash and bank to current assets ratio and other current assets including loans and advances and fixed deposits to current assets ratio, a high value indicates relatively favorable positions and ranking has been done in that order. On the other hand, a low inventory to current assets ratio shows a more favorable position and hence ranking has been done in that order. Ultimate ranking has been done on the principle that the lower the point score, the more favorable is the liquidity position.

Table No. III shows that the year 2008-2009 registered the most sound liquidity position and was followed by 2006,2010,2005,2007,2008,2001,2004,2002,2003 respectively in that order. The fluctuation in the liquidity position over different years of the period of study may be a point for investigation into the financial efforts of the concern.

TABLE - IV: SELECTED LIQUIDITY RATIO OF KCS&I LTD (2000-01TO2009-10)

YEAR	CURRENT RATIO	ACID TEST RATIO	INVENTORY TO SALES RATIO	DEBTORS TOSALES RATIO	WORKING CAPITAL TURNOVER RATIO	CURRENT ASSET TO TOTAL ASSET	CURRENT ASSET TO SALES RATIO
2000-01	4.44	1.62	2.15	10.70	1.25	0.54	0.96
2001-02	4.00	1.09	1.73	12.65	1.27	0.47	0.95
2002-03	4.37	1.00	1.64	15.92	1.43	0.55	1.10
2003-04	5.91	1.87	2.45	16.89	1.73	0.50	1.43
2004-05	4.97	2.27	5.54	18.12	2.64	0.41	2.11
2005-06	2.23	1.25	2.96	11.29	3.35	0.48	1.85
2006-07	2.50	0.99	2.56	11.25	2.59	0.60	1.56
2007-08	2.89	1.28	2.22	13.66	2.21	0.70	1.44
2008-09	2.53	1.86	2.89	14.66	2.70	0.68	1.64
2009-10	2.53	2.23	5.00	11.19	1.96	0.71	1.19
MEAN	3.63	1.54	2.91	13.63	2.11	0.56	1.42

Source: Annual Reports of KCS&I Ltd from 2001 To 2010

CURRENT RATIO

The ratio is calculated by dividing current assets by current liabilities. Current assets mean all those assets, which are convertible into cash within a year, such as marketable securities, debtors, stock, cash , bank and prepaid expenses, Current liabilities include the obligation maturing within a year like creditors, bills payable, outstanding expenses, bank overdraft and income tax liability. The current ratio is thus a measure of the firm's short term solvency. It indicates the availability of current assets in rupee for every one rupee of current liabilities. Ratio of greater than one means that the firm has more current assets than current assets than current claims against it. Ideal of current ratio is 2:1 in normal condition.

AS per table IV, current ratio of KCS&I LTD was above the ideal standard of 2:1. Ratio was always in between 2.23% to 5.91% during the study period, which actually shows a high trend. From 2000-01 to 2004-05, the current ratio was very high and from 2005-06 to 2009-10, the ratio was normal which indicates that the liquidity position of KCS & I LTD was sound. The average mean of current asset was 3.63 during the study period.

ACIDTEST RATIO

Quick ratio also known as acid test or liquid ratio is more vigorous test to liquidity than the current ratio. The term 'liquidity' refers to the ability of a firm to pay its short term obligation as and when they become due. The two determinants of current ratio as a measure of liquidity are current assets and liabilities. Current assets included inventories and prepaid expenses, which are not easily convertible into cash with in a short term period. Quick ratio may be defined as the relationship between quickly/current assets and current or liquid liabilities. An asset is said to be liquid if it can be converted into cash within a short period without loss of value. In that sense, cash to hand and cash at bank are the most liquid assets, ideal liquid ratio is 1:1.

As per table IV, acid test ratio was also satisfactory. In the year 2004-05, the ratio was 2.27% which was the highest ratio during the study period and the lowest ratio was 0.99% in the year 2006-07. It has been seen that from 2000-01, the ratio continuously decreased till 2002-2003 i,e from 1.62% to 1.00%.Thereafter, it was seen that there was an increase in ratio from 1.00% to 2.27% in the year 2002-03 to 2004-05. The overall average of ten years was 1.54 which is towards favorable position.

INVENTORY TO SALES RATIO

Inventory to sales ratio establishes relationship between the costs of goods sold to average stock. This ratio measures the velocity of conversion of stock into sales. Usually, a high inventory turnover indicates efficient management of inventory because more frequently the stocks are sold; the lesser amount of money is required to finish the inventory. A low inventory turnover ration indicates an inefficient management of inventory, over investment in inventories, sluggish business, poor quality of goods and lower profit as compared to total investment. A high inventory turnover may be the result of a very low level of inventory which results in storage of goods in relation to demand and a position of stock or the turnover may be high due to a conservative method of valuing inventories at lower value or the policy of the business to buy frequently in small lots.

As per table IV, inventory turnover ratio ranges from 1.64 times to 5.54times. It was lowest in the year 2002-03 and highest in the year 2004-05. There was fluctuated during the study period. The average means was 2.91 during the study period.

DEBTORS TO SALES RATIO

Debtors to sales ratio indicate the velocity of debtor's collection of the firm. In simple words, it indicates the number of time the debtors are turned over during a year. Generally, the higher the value of debtor's turnover, the more efficient is the management of receivable/sales or more liquid are the debtors. Similarly, low debtors turnover implies inefficient management of

debtors/sales and less liquid debtors. But a precaution is needed while interpreting, a very high ratio may imply a firm's inability due to lack of resource to sell on credit. There is no rule of thumb, which may be used as a norm to interpret the ratio, as it may be different from firm to firm, depending upon the nature of business. This ratio should be compared with ratio of other firms doing similar business and a trend may also be making a better interpretation of the ratio.

Table IV indicates that debtors to sales ratio of KCS&I LTD are fluctuating. It was highest during the year 2004-05(18.12%) and lowest in the year 2000-01(10.70). The average mean of debtors to sales ratio was 13.63 during the study period.

WORKING CAPITAL TURNOVER RATIO

Working capital of a concern is directly related to sales or cost of goods sold. The current assets like debtors, bills receivable, cash, bank, stock changes with increase or decrease in sales. The working capital is taken as current asset minus current liabilities. This ratio measures the efficiency with which the working capital is being used by a firm. A higher ratio indicates efficient utilization of working capital and a low ratio indicates otherwise. But a very high working capital turnover ratio is not a good situation for any firm and hence, care must be taken while interpreting the ratio.

The working capital turnover ratio of KCS&I LTD was highest in the year 2005-06(3.35)and the least in the year 2000-01(1.25).The ratio was increased from 1.25 to 3.35 in the year from 2000-01 to 2005-06 and after that decreased from 3.35 to 1.96 in the form 2005-06 to 2009-10 . The average mean of working capital turnover ratio was 2.11 during the study period.

CURRENT ASSETS TO TOTAL ASSETS

This ratio expresses the relationship between the amount of current assets and the amount of investment in total assets. It helps to assess the importance of current assets of a concern.

Table IV indicates that the ratio varied from 0.41% to 0.71%. The highest ratio was in the year 2009-10 and the lowest ratio was in the year 2004-05. The mean ratio of current asset to total asset was 0.56 during the study period.

CUERRENT ASSETS TO SALES RATIO

This ratio indicates the efficiency with which working capital turns into sales. A lower ratio implies by and large a more efficient use of funds. A high turnover rate indicates reduced lock-up of funds in working capital. An analysis of current assets to sales ratio over a period of time shows the overall efficiency or working capital management of a firm.

Table IV indicates a fluctuating trend of current assets to sales ratio. It was highest in the year 2004-05 which was 2.11% and lowest in the year 2001-02 which was 0.95%. The mean ratio of current asset to sales ratio was 1.42 during the study period.

CONCLUSION

Working capital positions of KCS&I LTD is analyzed by ratio analysis technique and it was found that the position of current ratio, quick ratio, acid test ratio, working capital ratio, inventory turnover ratios are satisfactory because these ratios are exceed the standard bench mark. Hence, the short term solvency or shot term liquidity position of KCS&I LTD was favorable from the result of these ratios.

The second objective of the study was to identify the items responsible for changes in working capital of KCS&I LTD. It was found that the result of working capital arrived positive values during the stud period. This situation is more favorable being able to meet out day to day expenses and short term liabilities. It has had positive impact on the board because in this situation, creditors or outsiders do feel secure.

It was also found that there is a positive relationship between current asset and current liabilities. It has +0.47 correlation among them, which indicates that current assets and current liabilities have been going in same direction.

The hypothesis assumed that there is a positive relationship between current asset and current liabilities, the significance value of r=+0.47, it is also analyzed by student test, t= 8.419 and $t_{0.05}$=2.262. The calculated value of t is more than the table value, therefore this hypothesis is rejected that there is significant difference in coefficient of correlation between current assets and current liabilities. Due to this result, working capital arrived negative in most of the study period. So this hypothesis is disapproved.

H1: alternative hypothesis that there is significant difference in coefficient of correlation between current asset and current liabilities of KCS&I LTD. Hence, it is clear that calculated value is more than table which indicates that the hypothesis is significant and there is a significant difference in coefficient of correlation between current asset and current liabilities. Thus alternative hypothesis is proved.

SUGGEESTIONS

The KCS&I LTD Company should adopt matching investment policy; in this regard, current liabilities should be used in current asset and not in fixed assets and vice versa.

- The KCS&I LTD Company should maintain the adequate amount of inventory for regularly supply of products.
- For maintaining adequate amount of inventory, it must be classified on the basis of value.
- Store should adopt inventory control techniques like ABC analyses technique.
- Short term solvency or liquidity position depends upon current assets and current liabilities, if current assets are more than current liabilities; it means that the organization has good liquidity position. In this light, KCS&I LTD should try to decrease their current

assets due to excess current ratio over standard ratio of current ratio i.e. 2:1 for reduce idle of current assets.

REFERENCES

Bairathi, S. (1993): Management of Working Capital in Public Enterprises, Jaipur. Pioneer Publisher.

Banerjee, Subirkumar (2000): “Financial Management” S Chand and Company, New Delhi.

Bhogappa & kulkarni, Jan (1990): Working Capital Management in DCCB, Gulberga. Corporator.

Chandra, Prasanna (1992): Financial Management Theory and Practice, Tata McGraw Hill Publishing Company Limited .New Delhi.

Garg.M.C. (1994) July: Working Capital Management in Marketing Federation A case study of the Rajasthan State Co-Operative Marketing Federation, Indian Corporator Review.

Gitman, L.J. (1989): Principals of Managerial Finance, New York: Harper & Row Publisher.

Gupta, Hari Dyal (1991): Inventory Control in Public Sector, Anmol Publications, New Delhi.

James, C. Van Horne (1989): Fundamentals of Financial Management, New Delhi: Prentice Hall of India Pvt, Ltd.

Kulshrestha, H.S (1987): Concept of Realization in Accounting,”The Journal of Accounting and Finance.”

Lawrence, D. Schall & Charles W. Haley (1993): Introduction to Finance Management, New York: McGraw Hill Book Company.

Pandey, I.M (2000):"Financial Management theory and Practice” Vikas Publication Co. New Delhi.

Paul, S.Kr (1988): Financial Management, New Central Book Agency, Calcutta.

Rao, K.V., (1990): Working Capital Management in Public Enterprises, Deep& Deep, Delhi.

Sharma, RK. And Shasi K. Gupta, (1995): Management Accounting, Kalyani Publishers, Ludhiana, p.977.

Sharrma, Uma (1990): Management of Working Capital Akanshdeep Publishing House Delhi.

VanHorne C.J. (1998): Financial Management and policy, New Delhi Prentice Hall of India (P) Ltd.

Van Horne C-James and Wachowicz (1997): Fundamentals of Financial Management, New Delhi, Prentice Hall of India Pvt. Ltd.