APPRAISAL OF WORKING CAPITAL OF A PUBLIC SECTOR UNDERTAKING -A CASE STUDY OF MADHYA PRADESH STATE AGRO INDUSTRIES DEVELOPMENT CORPORATION LIMITED

Dr. Santosh Gupta
Professor, Dept of Commerce, Institute for Excellence in Higher Education, Bhopal, M.P
India

Amit Kr Nag
Assistant Professor, Department of Commerce, The Bhopal School Of Social Sciences
India

Abstract

The present research work highlights the concept of working capital, working capital policy, components of working capital and factors affecting working management of the Madhya Pradesh State Agro Industries Development Corporation Limited., and tries to identify factors responsible for the improvement of working capital of the company. A firm's working capital consists of its investments in current assets which include short term assets such as cash and bank balances, inventories, receivables and marketable securities. So the working capital management of Madhya Pradesh State Agro Industries Development Corporation Limited has been undertaken keeping all these individual current assets. The tools of financial analysis applied in the research work gives a deeper view of the utilization of the working capital of the organization. Since Madhya Pradesh State Agro Industries Development Corporation Limited aims at providing financial assistance to agro-based industries which plays a vital role in the economic development of the country, the analysis of working capital position of Madhya Pradesh State Agro Industries Development Corporation Limited is very much justified.

Key Words: Working Capital, Agro-Based Industries, Current ratio, Liquid ratio, Absolute Liquid Ratio, Working Capital turnover ratio, Debtor's Turnover Ratio and Current Assets Turnover ratio.

JEL CODE: G12,G17& G32.

1. Concept:

The working capital management is concerned with determination of relevant levels of current assets and their efficient use as well as the choice of the financing mix. Working capital management, therefore, refers to all aspects of the administration of both current assets and current liabilities[1]. The efficiency of a firm to earn profits depends largely on its ability to manage working capital. Working capital management has acquired paramount importance in the recent past, especially in view of tight money conditions prevailing in the economy[2]. In other words, Working Capital Management is concerned with the problems that arise in attempting to manage the current assets, the current liabilities and the interrelationships that exist between them[3]. Working capital management refers to the administration of all aspects of current assets (i.e. cash, marketable securities, receivables and inventories) and current liabilities.

It is basically concerned with:

 i. Determining the need for working capital.
 ii. Determining the optimum levels of investment in various current assets.
 iii. Determining the appropriate sources for financing current assets.
 iv. Ensuring the payment of current liabilities as and when due.

Therefore, the objective of working capital management is to avoid situations of excessive and inadequate working capital and also to determine and maintain the optimum level of working capital after achieving a tradeoff between the profitability and liquidity so as to maximize the wealth of shareholders as a whole. Working capital management, therefore, is one of the important facets of a firms overall financial management[4].

2. Review of Literature:

According to Dansby (2000:826) "Liquidity is the ability of a business to meet its financial obligations as they fall due". On the other hand, Needles (1996:787) defines liquidity, as "a company's ability to pay bills when they are due and to meet unexpected needs of cash". Essien (2006:144) observed: Financial statements carry lots of financial information that are hidden in the figures. The figures in financial statements become more useful when they are related to each other

---

[1] Weston and Brigham, Managerial Finance, 5th edition, p.153.
[2] Agarwal, H.L.., Working Capital Policy- Developing an Analytical Model, The Management Accountant, Vol19, No.2, Feb.187, p598.
[3] Smith, K.V., Management of Working Capital (1974),p.5.
[4] Gitman, L.J., Principles of Managerial Finance, New York: Harper and Row Publishers,1976, p.148

or to some other relevant financial data. Therefore, users of financial information go a further step to establish relationships (or ratios) among selected data in financial statements.

According to Igben (1999:423), "Accounting {or financial} ratio is a proportion or fraction or percentage expressing the relationship between one item in a set of financial statements and another item in the financial statements. Accounting ratios are the most powerful, of all tools used in analyzed and interpreting financial statements". Therefore, ratio analysis involves taking stats of number (or items) out of financial statements and forming ratios with them, to enhance informed judgments and decisions (Lasher, 1997:66). Basel committee (2009) indicated that the liquidity level of the commercial banks is the paramount importance for the sustainability of the banks and they further indicated that the entire inner role of the bank is to ensure the stability of the cash flow. Barua (2001) in his paper liquidity scenario in commercial banks of Bangladesh, the results showed that liquidity level has been dropped by 2% due to excess government borrowing and inconsistent growth of deposit. This has been supported by the liquidity ratio.

3. Objective of The Study:

This study has the following objectives:

- ➤ To analyze the concept of Working capital.
- ➤ To examine the utilization of Working capital of the corporation.
- ➤ To make item wise analysis of the element or components of Working capital and to identify the items responsible for changes in working capital.
- ➤ To identify the financial strengths and weaknesses of the organization so as to suggest improvements for future.

4. Hypothesis of The Study:

There is no significant difference in Working capital requirement of M.P. State Agro Industries Development Corporation Ltd during the period of the study.

5. Methodology:

For the study, statistical data has been collected from various reports published periodically by the M.P. State Agro industries Development Corporation Ltd., offices of the registered Agro based industries, central offices of the Agro Processing industries, Govt. of India in Madhya Pradesh Development Corporation Ltd. The statistical techniques like percentage, averages, coefficient of

correlation, coefficient of variation, T-test have also been applied. For proper analysis and evaluation of operational performance and financial strength, the individual items of profit and loss accounts and balance sheet have also been regrouped.

6. Limitations:

The data used in the present study is completely based on secondary data collected from published financial and cost statement obtained from the offices of the M.P. State Agro industries Development Corporation Ltd. for the year from 2000-2009. Data have also been collected from various publications of the Agro based industries in M.P, websites of MPSAIDL and other institutes engaged in the field. Thus, the study unavoidably contains such limitations which are inherited in secondary data. Moreover, non availability of sufficient literature and information, form a major limitation of the study. Some of the limitations are also inevitable due to the fact that the data are grouped and sub grouped as per the requirements of the study.

7. Appraisal of Working Capital Management of M.P. State Agro Industries Development Corporation Ltd:

Appraisal of Working Capital has been made through Ratio analysis techniques because it is the most effective tool of appraisal of Working Capital. Ratios revealing Working Capital are popularly called Working Capital ratios. The Working Capital has been analyzed in detail from the point of view of the following considerations: -

7.1. Current Ratio:

Current ratio is an index of the firm's financial stability, i.e., an index of technical solvency and an index of the strength of working capital, which means excess of current assets over current liabilities. A high current ratio is an assurance that a firm will have adequate funds to pay current liabilities and current payments. The objective of computing this ratio is to measure the ability of the firm to meet its short term obligations and to reflect the short term financial strength of a firm. In other words, the objective is to measure the safety margin available for short-term creditors.

$$Current\ Ratio = \frac{Current\ Assets}{Current\ Liabilities}$$

Year	Current Assets(`)	Current liabilities(`)	Current Ratio
2000	8476.9	7621.18	1.11
2001	8822.31	8194.22	1.08
2002	8495.21	7299.52	1.16
2003	9141.67	6877.25	1.33
2004	6417.34	5950.2	1.08
2005	7289.77	7250.77	1.01
2006	6748	7025.78	0.96
2007	8932.88	9281.17	0.96
2008	8148.94	8289.44	0.98
2009	14032.49	14010.21	1
Statistical Analysis			
$\bar{x}_1 = 8650.55$	$\bar{x}_2 = 8179.97$	$\bar{x}_3 = 1.07$	
$\sigma_1 = 2002.00$	$\sigma_2 = 2125.29$	$\sigma_3 = 0.11$	
C.O.V$_1$ = 23.14%	C.O.V$_2$ = 25.98%	C.O.V$_3$ = 10.17%	
Growth=65.54%	Growth=83.83%	Growth=-9.95%	

Table 1: Statement Showing Current Ratio   *(`in lakhs)*

Source: Compiled from annual reports of The Madhya Pradesh State Agro Industries Development Corporation Ltd. (From 2000 - 2009)

- *Interpretation:*

As per the above table no.1, the Current ratio of the company ranges from 0.96:1 to 1.33:1. It was highest in the year 2002-2003 when it was 1.33:1 which came down to 0.96:1 during the years 2005-2006 and 2006-2007.The overall average of Current ratio was 1.07:1. The standard deviation of the Current ratio was 0.11 with coefficient of variation as 10.17. The above table clearly shows that throughout the period of study the current ratio was much below the traditional standard of 2:1, which means that the company has difficulty in meeting its current obligations. The Current Ratio was 1.11:1 in the year 2000 which increased to 0.08:1 in the year 2001 and then increased to 1.16:1 in the year 2002 and further increased to 1.33:1 in the year 2003. Then it decreased to 1.08: in the year 200 and further decreased to 1.01:1 in the year 2005. It again remained constant in the next 2 years with a decrease of 0.96:1 in the year 2006 and year 2007. Then it increased to 0.98:1 in the year 2008 and further increased to 1.00:1 in the year 2009.

7.2. Liquid Ratio :

Liquid ratio may be defined as the ratio of liquid assets to liquid liabilities or current liabilities. It is concerned with relationship between liquid assets and liquid of current liabilities. The other terms used for liquid ratio are 'Quick ratio' and 'Acid test ratio'. For the purpose of computation, the current assets and current liabilities should be classified as follows:

Current Assets [a] Liquid Assets [b] Deferred Assets

Current Liabilities [a] Liquid Liabilities [b] Deferred Liabilities

Liquid assets normally include cash, bank, sundry debtors, bills receivable and short term investment or marketable securities. In other words they are current assets minus inventories and prepaid expenses. In the same manner liquid liabilities are current liabilities minus bank overdraft and income received in advance. The formula as follows:

$$Liquid\ Ratio = \frac{Liquid\ Assets}{Current\ Liabilities}$$

Year	Liquid assets(`)	Current liabilities(`)	Liquid Ratio
2000	6840.14	7621.18	0.9
2001	7443.09	8194.22	0.91
2002	7659.05	7299.52	1.05
2003	7935.46	6877.25	1.15
2004	5347.33	5950.2	0.9
2005	6059.08	7250.77	0.84
2006	5906.84	7025.78	0.84
2007	8212.42	9281.17	0.88
2008	7593.79	8289.44	0.92
2009	13193.93	14010.21	0.94
Statistical Analysis			
	$\bar{x}_1 = 7619.11$	$\bar{x}_2 = 8179.97$	$\bar{x}_3 = 0.93$
	$\sigma_1 = 2066.33$	$\sigma_2 = 2125.29$	$\sigma_3 = 0.09$
	C.O.V$_1$ = 27.12%	C.O.V$_2$ = 25.98%	C.O.V$_3$ = 9.94%
	Growth=92.89%	Growth=83.83%	Growth=4.93%

Table 2: Statement Showing Liquid ratio   (` in lakhs)

Source: Compiled from annual reports of The Madhya Pradesh State Agro Industries Development Corporation Ltd. (From 2000 - 2009)

- *Interpretation:*

From the table no. 2, it is clear that the Liquid ratio was highest in the year 2002-2003 when it was 1.15 and was lowest in the year 2004-2005 and in 2005-2006 when it was 0.84. The average Liquid ratio was 0.93. The standard deviation of the Liquid ratio was 0.09 with coefficient of variation as 9.94. The ratio showed a decreasing trend from 2003-2004 to 2005-2006 when it came down from 0.90 to 0.84. In the year 2006-2007 it showed slit increase when it reached 0.88. Year 2007-2008 witnessed high increase in the ratio when it reached 0.92. Finally it reached 0.94 in the year 2008-2009. The Liquid Ratio was 0.90 in the year 2000 and increased to 0.91 in the year 2001 and further increased to 1.05 in the year 2002.it again increased to 1.15 in the year 2003. Then it decreased to 0.90 in the year 2004 and further decreased and remained constant for next 2 years by 0.84 in the year 2005 and year 2006. Then it increased to 0.88 in the year 2007 and again increased to 0.92 in the year 2008 and further increased to 0.94 in the year 2009.

7.3.Absolute Liquid Ratio:

Absolute Liquid Ratio measures a relationship between cash and marketable securities and current liabilities. The objective of computing this ratio is to measure the ability of the enterprise to meet its short-term obligations as and when due, without relying upon the realization of stock and debtors. Although receivables, debtors and bills receivables are generally more liquid than inventories, yet there may be doubts regarding their realizations into cash immediately or in time.

$$Absolute\ Liquid\ Ratio = \frac{Absolute\ Liquid\ Assets}{Current\ Liabilities}$$

This ratio gains significance only when it is used in conjunction with the first two ratios. A standard of 0.5:1 is considered an acceptable norm for this ratio. In other words, this ratio indicates that 50 paisa worth of absolute liquid assets is sufficient to meet 1rupee worth of liquid liabilities.

Year	Absolute Liquid Asset(`)	Current Liabilities(`)	Absolute Liquid Ratio
2000	2830.59	7621.18	0.37
2001	2940.75	8194.22	0.36
2002	2897.44	7299.52	0.4
2003	3921.78	6877.25	0.57
2004	1770.85	5950.2	0.3
2005	2020.17	7250.77	0.28
2006	1784.02	7025.78	0.25
2007	4133.23	9281.17	0.45
2008	3257.36	8289.44	0.39
2009	6221.24	14010.21	0.44
Statistical Analysis			
$\bar{x}_1 = 3177.74$ $\sigma_1 = 1274.86$ C.O.V$_1$ = 40.12% Growth=119.79%	$\bar{x}_2 = 8179.97$ $\sigma_2 = 2125.29$ C.O.V$_2$ = 25.98% Growth=83.83%	$\bar{x}_3 = 0.38$ $\sigma_3 = 0.09$ C.O.V$_3$ = 23.25% Growth=19.56%	

Table: - 3 Statement Showing Absolute Liquid Ratio   (̀in lakhs)

Source: Compiled from annual reports of The Madhya Pradesh State Agro Industries Development Corporation Ltd. (From 2000 - 2009)

- *Interpretation:*

According to table no.3, the Absolute Liquid Ratio was highest in the year 2003 when it was 0.57:1. The Absolute Liquid Ratio was lowest in the year 2006 when it was 0.25:1. The ratio showed a decreasing trend from 2003-2004 to 2005-2006 when it came down from 0.30:1to 0.25:1. In the year 2006-2007 it showed slit increase when it reached 0.45:1. The Average Absolute Liquid Ratio was 0.38:1. The standard deviation of the Absolute Liquid ratio was 0.09 with coefficient of variation as 23.25. The Absolute Liquid Ratio was 0.37:1 in the year 2000 which decreased to 0.36:1 in the year 2001 and then increased to 0.40:1 in the year 2002 and further increased to 0.57:1 in the year 2003. Then it decreased to 0.30:1 in the year 2004 and further decreased to 0.28:1 in the year 2005. It further decreased to 0.25:1 in the year 2007 and then decreased to 0.39:1 in the year 2009.

7.4. *Working Capital Turnover Ratio:*

Working Capital turnover ratio establishes a relationship between net sales and working capital. The objective of computing this ratio is to determine the efficiency with which the working capital is utilized. It indicates the firm's ability to generate sales per rupee of working capital. Generally, a

higher ratio indicates a more efficient management and utilization of working capital and a lower ratio indicates the inefficiency of the management. To judge whether the ratio is satisfactory or not, it should be compared with its own past ratios or with the ratio of similar enterprises in the same industry or with the industry average.

$$Working\ Capital\ Turnover\ Ratio = \frac{Turnover}{Working\ Capital}$$

This ratio is very significant for non-manufacturing concerns where working capital is more than the fixed assets. It reflects the efficiency in the utilization of working capital. Working capital turnover ratio actually indicates the velocity of the utilization of net working capital. This ratio indicates the number times; the working capital is turned over in the course of a year. This ratio measures the efficiency with which the working capital is being used by a firm.

Year	Turnover(`)	Working capital(`)	Working Capital Turnover Ratio (Times)
2000	19575.57	855.72	22.88
2001	16551.4	628.09	26.35
2002	20679.93	1195.68	17.3
2003	17301.83	2264.42	7.64
2004	20858.39	467.15	44.65
2005	15626.17	39	400.66
2006	14839.87	277.78	53.42
2007	20665.13	-348.29	-59.33
2008	20199.35	-140.5	-143.77
2009	33612.74	22.27	1509.02
Statistical Analysis			
$\bar{x}_1 = 19991.04$	$\bar{x}_2 = 526.13$	$\bar{x}_3 = 187.88$	
$\sigma_1 = 5020.93$	$\sigma_2 = 731.73$	$\sigma_3 = 459.92$	
C.O.V$_1$ = 25.12%	C.O.V$_2$ = 139.08%	C.O.V$_3$ = 244.79%	
Growth=71.71%	Growth=-97.40%	Growth=6496.51%	

Table 4: Statement Showing Working Capital Turnover Ratio   (`in lakhs)

Source: Compiled from annual reports of The Madhya Pradesh State Agro Industries Development Corporation Ltd. (From 2000 - 2009)

- *Interpretation:*

Table no.4, indicates that the Working Capital turnover ratio showed fluctuating trend during the period of the study. The ratio was lowest that is -143.77 in the year 2007-2008 while it was highest in the year 2008-2009 when it was 1509.02. The overall average for the whole period of study was 187.88. The standard deviation of the Working Capital turnover ratio was 459.92with coefficient of variation as 244.79. The above table clearly shows that the company is extremely weak in managing/utilizing its working capital in some years it has excess current liabilities over its current assets indicating the inefficiency of the company. The Working Capital Turnover Ratio was 22.88 in the year 2000 which increased to 26.35 in the year 2001 and then decreased to 17.30 in the year 2002 and further decreased to 7.64 in the year 2003 then it increased to 44.65 in the year 2004 and then increased to 400.66 in the year 2005. Afterwards it decreased to 53.42 in the year 2006 and then to -59.53 in the year 2007 and further decreased to -143.77 in the year 2008 then it increased to 1509.02 in the year 2009.

7.5.Stock Turnover Ratio:

Stock turnover Ratio establishes a relationship between costs of goods sold and average inventory of finished goods. The objective of computing this ratio is to determine the efficiency with which the inventory is converted into sales. Therefore, it indicates the speed with which the inventory is converted into sales. In general, a high ratio indicates efficient performance since an improvement in the ratio shows that either the same volume of sales has been maintained with a lower investment in stocks, or the volume of sales has increased without any increase in the amount of stocks.

$$Stock\ Turnover\ Ratio = \frac{Cost\ of\ Goods\ Sold}{Average\ Stock}$$

Inventory turnover ratio is an effective tool to measure the liquidity of inventory and thereby to avoid any danger of overstocking as a prelude to the efficient utilization of a firm's resources. It should be noted that these ratio's, standing by themselves, mean absolutely nothing hence for a meaningful analysis, they should be compared with similar ratio's in the previous period or with the ratio's of other similar firms. Although it is difficult to establish a standard ratio of inventory since it differs from industry to industry, however, one can use the general guidelines given below, to avoid such difficulties:

I. The raw material should not exceed 2-4 months' consumption of the year.
II. The finished goods should not exceed 2-3 months' sales.

III.   The work in progress should not exceed 15-30 days cost of sales

Year	Cost of goods sold(`)	Average stock(`)	Stock Turnover Ratio (Times)
2000	18105.68	2644.77	6.85
2001	15431.34	1507.99	10.23
2002	19334.97	1107.69	17.46
2003	16245.19	1021.18	15.91
2004	19718.31	1138.11	17.33
2005	14669.7	1150.35	12.75
2006	13914.07	1035.92	13.43
2007	19558.93	780.8	25.05
2008	19079.33	637.8	29.91
2009	31744.94	696.86	45.55
Statistical Analysis			
$\bar{x}_1 = 18780.25$	$\bar{x}_2 = 1172.15$	$\bar{x}_3 = 19.45$	
$\sigma_1 = 4781.63$	$\sigma_2 = 547.09$	$\sigma_3 = 10.81$	
C.O.V$_1$ = 25.46%	C.O.V$_2$ = 46.67%	C.O.V$_3$ = 55.58%	
Growth=75.33%	Growth=-73.65%	Growth=565.43%	

Table 5: Statement Showing Stock Turnover Ratio   (`in lakhs)

Source: Compiled from annual reports of The Madhya Pradesh State Agro Industries Development Corporation Ltd. (From 2000 - 2009)

- *Interpretation:*

According to table no.5, the Stock turnover Ratio was highest in the year 2009 which was 45.55 times higher turnover Ratio is always beneficial to the concern. The stock turnover Ratio was lowest in the year 2000 which was 6.85 times. The average Stock turnover Ratio was 19.45. We can see from the above table that the Stock turnover Ratio showed fluctuating trend. The standard deviation of the Stock turnover Ratio was 10.81with coefficient of variation as 55.58. This shows that the company is having very high ratio in some of the years may be because of very low inventory level which may result in frequent stock- outs and thus the company may incur high stock- outs costs. The Stock Turnover Ratio was 6.85 in the year 2000 which increased to 10.23 in the year 2001 and further increased to 17.46 in the year 2002. Then it decrease to 15.91 in the year 2003 and again increase to 12.75 in the year 2005 and then increase to 13.43 in the year 2007. Further increased to 29.91 in the year 2008 and at last increased upto 45.55 in the year 2009.

7.6. *Debtor Turnover Ratio:*

Debtor's Turnover Ratio indicates the economy and efficiency in the collection of amount due from debtors. The objective of computing this ratio is to determine the efficiency with which the trade debtors are converted into cash. It indicates both the quality of debtors and the credit collection efforts of the enterprise. In general, a high ratio indicates the shorter collection period which implies prompt payments by debtor and a low ratio indicates a longer collection period which implies delayed payments by debtors.

$$Debtor\ Turnover\ Ratio = \frac{Turnover}{Average\ Debtors}$$

In order to measure the efficiency of the credit collection department, this should be compared with average of the industry.

Year	Turnover(`)	Average Debtors(`)	Debtor Turnover Ratio (Times)
2000	19575.57	3046.93	6.42
2001	16551.4	3090.77	5.36
2002	20679.93	3335.72	6.2
2003	17301.83	3018.7	5.73
2004	20858.39	2506.81	8.32
2005	15626.17	2730.15	5.72
2006	14839.87	3240.03	4.58
2007	20665.13	3356.5	6.16
2008	20199.35	3508.3	5.76
2009	33612.74	4968.05	6.77
Statistical Analysis			
$\bar{x}_1 = 19991.04$	$\bar{x}_2 = 3280.20$	$\bar{x}_3 = 6.10$	
$\sigma_1 = 5020.93$	$\sigma_2 = 630.14$	$\sigma_3 = 0.94$	
$C.O.V_1 = 25.12\%$	$C.O.V_2 = 19.21\%$	$C.O.V_3 = 15.33\%$	
Growth=71.71%	Growth=63.05%	Growth=5.31%	

Table 6: Statement Showing Debtor Turnover Ratio   (`in lakhs)

Source: Compiled from annual reports of The Madhya Pradesh State Agro Industries Development Corporation Ltd. (From 2000 - 2009)

- *Interpretation:*

According to table no.6, the highest debtor's turnover ratio was in year 2004 when it was 8.32 times. The lowest debtor's turnover ratio was in the year 2006 which was 4.58 times and the average debtor's turnover ratio was 6.10. The standard deviation of the Stock turnover Ratio was 0.94 with coefficient of variation as 15.33. The Debtor's Turnover Ratio was almost consistent except for the year 2003-2004 when it was highest may be because of firms inability due to lack of resources to sell on credit thereby losing sales and profit. The Debtor Turnover Ratio was 6.42 in the year 2000 which decreased to 5.36 in the year 2001 and then increased to 6.20 in the year 2002 and then it decreased to 5.73 in the year 2003. After that it increased to 8.32 in the year 2004 and then it decreased to 5.72 in the year 2005 and f2urther decreased to 4.58 in the year 2006. Then it increased to 6.16 in the year 2007 and then decreased to 5.76 in the year 2008 and again increased to 6.77 in the year 2009.

7.7. *Current Assets Turnover Ratio:*

Current Assets Turnover ratio establishes relationship between net sales and current assets. The objective of computing this ratio is to determine the efficiency with which the current assets are utilized. It indicates the firm's ability to generate sales per rupee of investment in current assets. In general, higher the ratio, the more efficient is the management and utilization of current assets and vice versa.

$$Current\ Assets\ Turnover\ Ratio = \frac{Turnover}{Current\ Assets}$$

There are two components of this ratio, they are as follows:

I. Net sales which means gross sales minus sales returns.
II. Current assets: Current assets refer to those assets which are held for their conversion into cash normally within a year.

There is no direct relationship between sales and current assets since the sales are influenced by other factors like quality of product, delivery terms, credit terms, after sales service, advertisement and publicity, etc. to judge whether the ratio is satisfactory or not, it should be compared with its own past ratios or with the ratio of similar enterprises in the same industry or with industry average.

Year	Turnover(`)	Current Assets(`)	Current Assets Turnover Ratio (Times)
2000	19575.57	8476.9	2.31
2001	16551.4	8822.31	1.88
2002	20679.93	8495.21	2.43
2003	17301.83	9141.67	1.89
2004	20858.39	6417.34	3.25
2005	15626.17	7289.77	2.14
2006	14839.87	6748	2.2
2007	20665.13	8932.88	2.31
2008	20199.35	8148.94	2.48
2009	33612.74	14032.49	2.4
Statistical Analysis			
$\bar{x}_1 = 19991.04$	$\bar{x}_2 = 8650.55$		$\bar{x}_3 = 2.39$
$\sigma_1 = 5020.93$	$\sigma_2 = 2002.00$		$\sigma_3 = 0.37$
C.O.V$_1$ = 25.12%	C.O.V$_2$ =23.14%		C.O.V$_3$ = 15.56%
Growth=71.71%	Growth=65.54%		Growth=3.9%

Table 7: Statement Showing Current Assets Turnover Ratio   (`in lakhs)
Source: Compiled from annual reports of The Madhya Pradesh State Agro Industries Development Corporation Ltd. (From 2000 - 2009)

- *Interpretation:*

According to table no.7, the Current Assets Turnover ratio was highest in the year 2003-2004 which was 3.25 times higher turnover Ratio is always beneficial to the concern. The Current Assets Turnover ratio was lowest in the year 2000-2001 which was 1.88 times, the average Current Assets Turnover ratio was 2.39 times. We can see from the above table that the Stock turnover Ratio showed meager fluctuating trend from 2001 to 2004. The standard deviation of the Current Assets Turnover ratio was 0.37 with coefficient of variation as 15.56. This shows that the Current Assets Turnover ratio of the company was almost consistent during the period of study. The Current Assets Turnover Ratio was 2.31 times in the year 2000 which decreased to 1.88 times in the year 2001 and then increased to 2.43 times in the year 2002 and again decreased to 1.89 times in the year 2003. It then increased to 3.25 times in the year 2004 and again decreased to 2.14 times in the year 2005 and further increased to 2.2 times in the year 2006. It again increased to 2.31 times in the year 2007 and further increased to 2.48 times in the year 2008 and remain the same by 2.4 times in the year 2009.

7.8. Current Assets To Proprietary Fund:

The Current Assets to Proprietary Fund ratio indicates the extent to which proprietors' funds are invested in current assets. There is no 'rule of thumb' for this ratio and depending upon the nature of the business there may be different ratios for different firms. The ratio is calculated by dividing the total of current assets by the amount of shareholders' funds.

$$Current\ Assets\ Proprietary\ Fund = \frac{Current\ Assets}{Proprietary\ Fund}$$

Proprietary fund or shareholders' fund is a combination of equity share capital, reserves and surplus, undistributed profits less fictitious assets. Current assets includes cash and bank balances, debtors, stock, bills receivables, loans and advances, marketable securities, etc.

Year	Current Assets(`)	Proprietary Fund(`)	Current Assets to Proprietary Fund
2000	8476.9	382.88	22.14
2001	8822.31	379.52	23.25
2002	8495.21	389.33	21.82
2003	9141.67	385	23.74
2004	6417.34	380.9	16.85
2005	7289.77	376.79	19.35
2006	6748	372.69	18.11
2007	8932.88	386.59	23.11
2008	8148.94	439.89	18.52
2009	14032.49	450.58	31.14
Statistical Analysis			
$\sigma_1 = 2002.00$ C.O.V$_1$ = 23.14% Growth=65.54%	$\sigma_2 = 25.92$ C.O.V$_2$ =6.57% Growth=17.68%	$\sigma_3 = 3.87$ C.O.V$_3$ = 17.76% Growth=40.66%	

Table: 8 Statement Showing Current Assets to Proprietary Fund   (`in lakhs)

Source: Compiled from annual reports of The Madhya Pradesh State Agro Industries Development Corporation Ltd. (From 2000 - 2009)

- *Interpretation:*

According to table no.8, the Current Assets to Proprietary Fund was highest in the year 2009 when it was 31.14 and it was lowest in the year 2004 when it was 16.85 the average Current Assets to Proprietary Fund was 21.80. The Current Assets to Proprietary Fund Ratio was almost consistent

from 2000 to 2003,except for the year 2003-2004 when it came down to 16.85. It showed fluctuating trend from the year 2004-2005 to 2008 to 2009. The standard deviation of the Current Assets to Proprietary Fund Ratio was 3.87 with coefficient of variation as 17.76.Since the coefficient of variation was low, it can be concluded that in totality the proprietary fund invested in current assets was consistent. The Current Assets to proprietor fund was 22.14 in the year 2000 which increased to 23.25 in the year 2001 and then it decreased to 21.82in the year 2002 and again it increased to 23.74 in the year 2003. After that it decreased to 16.85 in the year 2004 and it again increased to 19.35 in the year 2005 and it again decreased t6o 18.11 in the year 2006. In the year 2007 it increased to 23.11 which decreased to 18.52 in the year 2008 and then it increased to 31.14 in the year 2009

8. Hypothesis Testing:

- *Null Hypothesis (Ho):*

There is no significant difference in Working capital position of M.P. State Agro Industries Development Corporation Ltd.

- *Interpretation of t-test:*

$t=7.15$ & $t_{0.05}=1.86$

$t > t_{0.05}$

When degree of freedom (df) is 8 and level of significance is 5%, the critical value $t_{0.05}$ is 1.86. Since the calculated value of t is 7.15 which is more than the table value, we conclude that there is significant difference in Working capital position of M.P. State Agro Industries Development Corporation Ltd. Hence null hypothesis is rejected.

- *Alternative Hypothesis (H₁):*

There is significant difference in Working capital position of M.P. State Agro Industries Development Corporation Ltd.

The calculated value of t is 7.15 which is more than the table value, we conclude that there is significant difference in Working capital position of M.P. State Agro Industries Development Corporation Ltd. Hence null hypothesis is accepted.

- **Working Capital :**

The widely accepted view of working capital is that it must measure the relationship of current assets with current liabilities. In the present study the same view of working capital has been used. The

analysis of working capital of the Madhya Pradesh State Agro Industries Development Corporation Limited reveals a fluctuating trend. The analysis of different components of current assets revealed that debtor constituted major part of current asset while inventory constitute a substantial part. The current ratio of the company was far below the norm of 2:1, throughout the period of study. The current ratio of the Madhya Pradesh State Agro Industries Development Corporation Limited shows its difficulty to meet its short term obligations. The total assets of the company comprises of both fixed and current assets, where current assets are more than 77% and fixed assets represents only 23% of total assets. Hence, it shows that the company has not made proper utilization of its current assets. The Madhya Pradesh State Agro Industries Development Corporation Ltd is having high blockage of funds in the form of cash, bank balances, and debtors and in inventories. The liquid asset ratio as well as absolute liquid ratio of the company is quite satisfactory. The working capital turnover ratio of the concern was satisfactory up to 2006-2007 but later on this ratio reduced. It has been observed that there is a high blockage of funds in debtors since proper and timely recovery is not being made from them. This is evident from the fact that the debtor's turnover ratio is 6 times in a year indicating a liberal credit policy adopted by the company.

It has been observed from the study that the amount of inventory was higher than the amount of working capital in the business. If the company continues to have high volume of inventory it may face a situation of liquidation in near future. The ratio of current assets to long term debt is not at all satisfactory. The average current asset to long term debt was 10.03. The loans and advances to working capital ratio was also not satisfactory which shows that the company is providing loans and advances to its employees at a cheaper or at subsidized rate. The cash to current assets ratio of the company reached 10.95% in the year 2004-2005 which is not at all satisfactory. The company needs to maintain a ratio of 5% on an average. The average ratio of debtors to current assets was 40% which very high, the company needs to maintain a ratio of 20%.

The appraisal of working capital from various point of view revealed that the working capital of the company cannot be considered adequate for carrying out routine business operations. By routine business operations it means purchases, payments of direct and indirect expenses, carrying out of production, investment in stock and stores, granting credit to customers and maintenance of cash, etc.

9. Suggestions:

Every research work is conducted with some purpose in mind. The purpose or objective of the research work undertaken here is to analyze and appraise the Working Capital and performance of

M.P. State Agro Industries Development Corporation Ltd. Keeping such purpose or objective in mind and on the basis of findings and conclusions, the following suggestions are given to the organization:

1   The company should try to reduce blockage of funds in current assets and should try to increase investment in fixed assets.

2   The Madhya Pradesh State Agro Industries Development Corporation LTD should invest excess amount in current assets and should try to invest in other investments schemes so that it can earn more return.

3   The company should try to pay its current liabilities promptly. This could be done out of current assets or some other alternative arrangements should be made such as getting subsidies or financing from both central and state government.

4   The Madhya Pradesh State Agro Industries Development Corporation Ltd should follow a stiff credit policy so that money can be promptly recovered from the debtors and there are fewer chances of bad debts.

5   The Madhya Pradesh State Agro Industries Development Corporation Ltd should try to maintain cash equivalent to 6% to 8% of working capital. If the company has huge amount of cash in hand, it will have a negative impact showing unutilized cash.

6   The company should try to reduce their inventory because the amount of inventory is higher than the amount of working capital throughout the period of study. The inventory should be reduced so that there are less chances of spoilage, pilferage, loss due to change in prices and loss due to change in technology. There is a need to increase working capital which may be done by issue of share capital.

References:

1.   Anthony, R.N. & Reece, J.S. (1975): Management Accounting, (Ilinosis: R.D. Irwin), P.248

2.   Banerjee, Ashok.,(2004): Financial Accounting-A Managerial Emphasis, Excel Books,p. 423.

3.   Basant & C. Raj (1978): Corporate Financial Management, (New Delhi: Tata McGraw Hill Publishing Co., Ltd., P.154

4.   Betty, J. (1971): Management Accounting (London: McDonald & Evan, P.382.

5.   Bhat, S, Financial Management –Principles and Practice, Excel Books (2008), pp28-32.

6.   Chowdhary S.B. (1977): 'Management Accountancy', (New Delhi: Kalyani Publishers), P.45

7.   Khan, M.Y. & Jain, P.K. (1982): Financial Management, (New Delhi: Tata McGraw Hill Publishing Co. Ltd.), P.139.

8.   Kulshrestha N.K. (1971): Ph.D. Thesis on "Analysis of Financial Statements of paper Industry in India" University of Rajasthan, Jaipur, p.379.

9.   Monga, J.R. (1981): Topics in Financial Accounting, (New Delhi: National Publishing House, P.51

Siddiqui, S. A. (2002), Accountancy: Laxmi Publications (P) Ltd., p894.