



Structure of Working Capital in Sample Micro, Small and Medium Enterprises in Kurnool District of Andhra Pradesh

KEYWORDS

Current Assets, Current Liabilities, Debtors etc.

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ABSTRACT

The analysis of the structure of working capital enables to understand the working capital condition in selected MSME units. The structure of working capital comprises both current assets and current liabilities. The components of current assets in the sample industries include inventory, short term investments, trade debtors, cash and bank balances and other such as advance payment to suppliers and prepaid expenses. The current liabilities constitute the short term bank loans, non-bank loans, trade creditors and others like outstanding wages and salaries, tax and advances from customers. Each component of current assets and current liabilities is expressed as a percentage of total assets and total liabilities respectively. Further, indices of current assets, current liabilities and net working capital are computed in order to examine the inter-relationships that exist among these financial variables.

The universe for the study consists of 142 MSMEs registered in the five industrial estates of Kurnool district at the end of March, 2012. Because of non co-operation of some of the managements of MSMEs, the relevant data required for the present study could not be collected from 106 MSMEs. The remaining 36 MSMEs constitute the sample of the study. The sample units represent diverse industrial units such as agro based (12), mineral (8), plastic (6), chemical (3), engineering (3) and miscellaneous (4). In this paper an attempt has been made to study the working capital structure in MSME units in Kurnool District of Andhra Pradesh.

1. INTRODUCTION

The analysis of the structure of working capital enables to understand the working capital condition in selected MSME units. The structure of working capital comprises both current assets and current liabilities. The components of current assets in the sample industries include inventory, short term investments, trade debtors, cash and bank balances and other such as advance payment to suppliers and prepaid expenses. The current liabilities constitute the short term bank loans, non-bank loans, trade creditors and others like outstanding wages and salaries, tax and advances from customers. Each component of current assets and current liabilities is expressed as a percentage of total assets and total liabilities respectively. Further, indices of current assets, current liabilities and net working capital are computed in order to examine the inter-relationships that exist among these financial variables.

2. SAMPLING DESIGN

The universe for the study consists of 142 MSMEs registered in the five industrial estates of Kurnool district at the end of March, 2012. Because of either non co-operation of some of the managements of MSMEs or transfer of management of MSMEs or irregularity of data compilation by the managements of some other MSMEs, the relevant data required for the present study could not be collected for 106 MSMEs. The remaining 36 MSMEs constitute the sample of the study. The sample units represent diverse industrial units such as agro based (12), mineral (8), plastic (6), chemical (3), engineering (3) and miscellaneous (4). In this paper an attempt has been made to study the working capital structure in MSME units in Kurnool District of Andhra Pradesh.

3. WORKING CAPITAL STRUCTURE IN AGRO-BASED UNITS

The total current assets increased from Rs.62.082 lakhs in 2008 to Rs.88.58 lakhs in the year 2012. But the net fixed assets decreased from Rs.58 lakhs to Rs.47.693 lakhs in the same period. The current assets were more than the fixed assets during the study period. In percentage terms, the total current assets moved from 51.7 per cent in 2008 to 65 per cent in 2012, whereas net fixed assets declined from 48.3 per

cent in 2008 to 35 per cent in 2012.

Of various current assets, inventory alone constituted 19.4 per cent in 2008 and stepped up to 24.5 per cent by 2012. Trade debtors were the next prime asset to inventory which increased from 15.8 per cent in 2008 to 19.1 per cent in 2012. The increase was due to accelerated sales activity of the industry. Other current assets occupied third position which moved from 11.0 per cent to 14.0 per cent during the study period. Cash and bank balances depicted rise and fall over the period under reference. Short term investments marginally improved from 2.1 per cent to 3.6 per cent.

The current liabilities were less than the long term funds over the study period both in absolute and percentage terms. In terms of percentage, the current liabilities registered a rise from 46.1 in 2008 to 47.6 in 2010 and thereafter declined to 44.5 by 2012. Bank loans showed a sharp rise from 13.2 per cent in 2008 to 14.6 per cent in 2012. As an alternative, trade credit was highly exploited. Trade creditors reported considerable increase from Rs.17.292 lakhs to Rs.23.577 lakhs. Non bank loans also decreased from 17.3 per cent to 11.2 per cent in the same period. The other current liabilities shared very insignificant proportion of total liabilities in all the years under consideration.

The indices of current assets reported a continuous rising trend for all years. The similar case with the indices of current liabilities except 2012. But it is observed that the rate of increase in the indices of current assets was far better than that of the current liabilities. The result is that, the net working capital indices registered a very significant rise. The existence of positive net working capital coupled with an increasing trend implies satisfactory working capital position in agro based units.

4. WORKING CAPITAL STRUCTURE IN MINERAL BASED UNITS

The current assets improved from Rs. 20.503 lakhs to Rs. 26.088 lakhs during the period under reference. In percentage terms too, it had gone up from 49.7 to 57.9 during the same period. Consequently, net fixed assets declined from

Rs.20.750 lakhs (50.3 per cent) to Rs.18.969 lakhs (42.1 per cent). The current assets were more than that of net fixed assets during the entire period of study with the exception of 2008.

Among the current assets, inventory occupied prime place ranging between 20.1 per cent in 2008 and 23.0 per cent in 2012. Inventory of raw materials in this category constitutes largely the size of inventory. Trade debtors varied from 12.7 per cent in 2008 to 16.2 per cent in 2012. Other current assets increased from 11.5 per cent to 11.7 per cent in the same period. Short term investments were more or less stable in all the years of the study. Cash and bank balances fluctuated between 2.6 per cent in 2008 and 3.1 per cent in 2012.

The current liabilities were less than the long term funds over the study period. It varied from 40.8 per cent in 2012 to 44.8 per cent of total liabilities in 2008. But long term funds rose from 55.2 per cent in 2008 to 59.2 per cent in 2012. Bank loans were marked with ups and downs, whereas non-bank loans registered a decline from 17.3 to 13.6 per cent. There was slight fall in trade creditors from 12.4 to 11.8 per cent. Other current liabilities mildly altered from year during the period of study.

The rate of increase in current assets was more than that of current liabilities. The indices of net working capital augmented to 381.0 per cent in the year 2012. The mineral industry enjoyed favourable working capital position in all the years of study, more particularly in later years.

5. WORKING CAPITAL STRUCTURE IN PLASTIC BASED UNITS

The current assets shared maximum proportion of total assets in this industry. The current assets centered around 87.0 per cent during the study period. Net fixed assets varied from the highest 12.9 per cent in 2010 to the lowest of 11.7 in the alternate years 2009 and 2012.

As compared to all other industries under study, debtors are the chief item of current assets varying from 54.0 per cent to 59.2 per cent during the study period. Inventory is the second important item of current assets which fluctuated between the lowest of 17.2 per cent and the highest of 29.7 per cent. Cash and bank balances declined from Rs. 1.680 lakhs in 2008 to Rs.0.549 lakhs in 2012 while other current assets improved from Rs.132.0 lakhs to Rs.3.085 lakhs. The short term investments apportioned negligible share both in terms of absolute figures and percentages.

The long term funds shared the highest proportion of total liabilities ranging between 74.3 per cent and 77.8 per cent during the period under review. The current liabilities, therefore, were less than the long term funds over the study period. The current liabilities fluctuated between 22.9 per cent in 2008 and 25.7 per cent in 2011. Bank loans improved Rs.2.361 lakhs in 2008 to Rs.2.536 lakhs in 2012. Non-bank loans mildly decreased from 5.2 per cent in 2008 to 4.9 per cent in 2012. Trade creditors fell from 4.2 per cent to 3.2 per cent over the study period. Other current liabilities registered a rise over the years.

The indices of current assets and current liabilities showed a rising trend. But the rate of increase in current liabilities was much more than that of current assets. In spite of this, the industry continued to enjoy positive net working capital situation.

6. WORKING CAPITAL STRUCTURE IN CHEMICAL BASED UNITS

The investment in current assets recorded was more than 75.0 per cent of total assets during the entire period of study. Net fixed assets varied from the lowest of 22.1 per cent in 2012 to the highest of 24.7 per cent in 2008. It is evident that the current assets showed an improvement over the years

while that of net fixed assets declined.

Among all the current assets, inventory is the leading item representing more than 55.0 per cent. But it declined from 60.4 per cent to 58.2 per cent during the period under investigation. Trade debtor was next item to inventory in his industry. It registered a rising trend not only in terms of absolute values but also percentages. Other current asset augmented from 5.5 per cent in 2008 to 7.0 per cent in 2011 which thereafter declined. A marginal enhancement was noticed in short term investments as well as in cash and bank balances.

The current liabilities and long term funds apportioned approximately 50.0 per cent of total liabilities. The bank loans are the principal component of current liabilities as compared to other constituents. In terms of percentages, it slide down from 21.2 per cent to 19.7 per cent. The industry also utilised non-bank loans. Trade creditors recorded an upward swing while other current liabilities shared negligible proportion over the study period. Excepting 2010, the indices of current liabilities surpassed the indices of current assets. Despite this the firm enjoyed positive working capital situation in most of the years under study.

7. WORKING CAPITAL STRUCTURE IN ENGINEERING BASED UNITS

The current assets represented by more than three-fourth of total assets. Net fixed assets had declined over the years with the exception of 2010. Inventory occupied lion's share constituting more than 60.0 per cent of total assets. Trade debtors registered an uptrend up to the year 2011 and later declines. The short term investments varied from the minimum of 2.4 per cent and a maximum of 3.4 per cent. It is quite clear that the investment in short term investments was stagnant during the study period. Cash and bank balances ranged between 1.0 per cent in 2010 and 2.9 per cent in 2012. The improvement in cash balance was due to increase in cash sales of the industry.

In this industry, long term funds were more than the current liabilities. The current liabilities recorded less than 50.0 per cent in all the years of study. The industry depends upon more or less equally on bank loans and non-bank loans depicted an improvement. Trade creditors had increased from 12.3 per cent to 13.9 per cent and other current liabilities apportioned negligible percentage of total liabilities during the five year period. The indices of current liabilities outweighed the indices of current assets. Despite this, the engineering industry had positive working capital position in all the years.

8. WORKING CAPITAL STRUCTURE IN MISCELLANEOUS UNITS

The current assets were more than 77.0 per cent of total assets. Net fixed assets formed small proportion of total varying between the lowest of 19.2 per cent to the highest of 22.4 per cent over the five year period.

In this industry, trade debtor is the chief component closely followed by other current assets. Trade debtors improved from 25.2 per cent to 27.6 per cent while the other current assets declined from 22.9 per cent in 2008 to 17.6 per cent in 2012. Inventory registered mild fluctuations over the years. Cash and bank balances recorded an upward swing with the exception of the concluding year. Short term investments registered an upswing in terms of absolute figures as well as in terms of percentages.

The current liabilities were more than the long term funds apportioning 53.0 per cent of total liabilities. Bank loans are the chief item of current liabilities closely followed by non-bank loans and trade creditors. Other current liabilities occupied insignificant proportion.

The indices of current assets and current liabilities show that the pace of increase in current assets was more than that of

the current liabilities, reporting better working capital position in the industry. This fact is further supported by the rising indices of net working capital.

9. POSITION OF CURRENT ASSETS AND FIXED ASSETS (NET)

The average investment in current assets and fixed assets (net) of select MSME units for the five year period is detailed in Table No.1.

TABLE – 1
AVERAGE PERCENTAGE OF CURRENT AND FIXED ASSETS (NET) IN SAMPLE INDUSTRIES DURING 2008-2012

Name of the Industry	Current Assets	Fixed Assets	Total
Agro-based	59.8	40.2	100
Mineral	54.5	45.5	100
Plastic	87.8	12.2	100
Chemical	77.7	22.3	100
Engineering	74.9	25.1	100
Miscellaneous	78.5	21.5	100
MSMEs	69.5	30.5	100

Source: Computed on the basis of Annual Reports.

On an average the quantum of investment in current assets was higher than the fixed assets in all the select MSME units. This underlines the significance of management of working capital in sample MSMEs.

10. ANALYSIS OF VARIANCE (ANOVA) TEST

10.1. ANOVA Test in Working Capital

The 'F' test (Analysis of variance) is applied in order to test the significance of variations in the indices of working capital among various MSME units and between years under study. The results are shown in Table No.2.

TABLE – 2
ANALYSIS OF VARIANCE OF INDICES OF NET WORKING CAPITAL IN SAMPLE MSME UNITS

Source of variance	Sum of Squares	Degree of Freedom	Mean square	FC	Ft
MSME categories	286434	6-1 = 5	57287	9.51	4.52*
Years	78308	5-1 = 4	19577	1.22	4.52**
Error	120534	5 X 4 = 20	16027	-	-
Total	485276	29	-	-	-

*significant at 5% level ** Not significant at 5% level

Since the calculated F-value 9.51 is greater than the critical value (4.52) at 5% level of significance implies that there is a significant difference in the indices of working capital between MSME units (categories).

The calculated value of 'F' ratio in between the years is 1.22. The critical value of 'F' at 5 per cent level of significance is 4.52. The calculated value of 'F' in between the years is less than the table values at 5% level of significance. Thus, the differences in the indices of working capital in between years among MSME categories are not significant.

10.2. ANOVA test in Current Assets

It can be seen from Table No.3 that the calculated value of 'F' ratio in between the MSME categories is 8.18. The table value of 'F' at 5 per cent level of significance is 4.52. So the calculated value is more than the Table value (Ft), then there is a significant difference in current assets between MSME categories. Similarly between years also there is a significant difference because the FC is greater than Ft.

TABLE – 3
ANALYSIS OF VARIANCE OF INDICES OF CURRENT ASSETS IN SAMPLE MSME UNITS

Source of variance	Sum of Squares	Degree of Freedom	Mean square	FC	Ft
MSME categories	1108	6-1 = 5	221.6	8.18	4.52*
Years	2368	5-1 = 4	592	21.85	4.52**
Error	542	5 X 4 = 20	27.1	-	-
Total	4018	29	-	-	-

*significant at 5% level ** Not significant at 5% level

10.3. ANOVA Test in Current Liabilities

It can be observed from Table 4 that the calculated value of 'F' ratio in between MSME categories is 6.17 and the table F value at 5% level is 4.52, hence there is a significance difference between MSME categories in the case of current liabilities. But, there is no significant difference between years increase of current liabilities, since the Fc is less than Ft.

TABLE – 4
ANALYSIS OF VARIANCE OF INDICES OF CURRENT LIABILITIES IN SAMPLE MSME UNITS

Source of variance	Sum of Squares	Degree of Freedom	Mean square	FC	Ft
MSME categories	2675	6-1 = 5	535	6.17	4.52*
Years	1107	5-1 = 4	276.75	3.19	4.52**
Error	1734	5 X 4 = 20	86.7	-	-
Total	5516	29	-	-	-

*significant at 5% level ** Not significant at 5% level

11. CONCLUSION

In sample MSME groups, working capital formed the major chunk of investment. It signifies the need for more attention of the entrepreneur of the MSME units towards management of working capital. The differences in the indices of net working capital among the sample industries are significant. In industry groups such as plastic, chemical and engineering, the rate of increase in current liabilities was much more than that of current assets. Despite this, these industries too had positive net working capital. The working capital condition in sample MSME units superficially seems to be satisfactory.

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