



## Working Capital Structure in Micro Industries (With Special Reference to Kerala State, India)

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### ABSTRACT

*Working capital structure plays a significant role in the profitability of any business organization. The major reason behind any unsuccessful small scale industries is its wrong working capital structure, which cannot be easily identified like the fixed capital problems. All the major financial problems in micro industries finally arrived at its weak working capital structure. This study made an attempt to throw light on such working capital structure problems. The researcher has taken this topic to identify the factors that constitute the working capital structure and its impact on firms overall profitability. The researcher has been selected 100 samples across 10 different micro industries for the study using convenience sampling method. Major tools like Ratio Analysis, One way ANOVA, Standard Deviation, Mean Deviation, Coefficient of Variation etc are used in the study.*

**KEYWORDS :** Working capital structure, Micro Industries, MSME

### INTRODUCTION

The micro small and medium enterprises (MSMEs) have been accepted world wide as the engine of economic growth and for creating vast job opportunities. The major advantage of the MSME sector is its high employment potential with low capital cost. The MSME's also plays a vital role in overall industrial production and exports. The India government has constituted an act called "The Micro, Small and Medium Enterprises Development Act, 2006" for the development of micro, small and medium enterprises in India. According to this act a manufacturing enterprise having investment upto 25 lakhs is considered as a micro enterprise.

In India over 90% of the total enterprises are MSME's and per the latest statistics, it is estimated that MSME contributes about 45% of the manufacturing output and around 40% of the total export of the country.

Kerala is one of the well developed states in terms of human resources. In post-liberalization era, Kerala focuses largely on small scale sectors and a lot of new enterprises are registered in this sector. Kerala is gifted with natural resources, which can provide raw material to the small scale industries. The food processing industry and rubber based industries are the front runner in this sector. Nearly 80% of the nations natural rubber production is from Kerala alone. Moreover the head quarters of the "Rubber Board of India" is situated in Kerala.

### STATEMENT OF THE PROBLEM

Working capital management of any business firm requires specific skills and knowledge in that area, which is lacking in many of the micro industries. In micro units almost all the works should be done by the Entrepreneurs alone, who are unprofessionals. For this, the Government of India is organizing several "Entrepreneur development programmes" for the development of such Entrepreneurs. But still the success rate of the Entrepreneurs is very few in India.

### OBJECTIVES OF THE STUDY

- To study about the present structure of working capital
- To study about the proportions of various components of working capital
- To study about the effect of working capital structure on total working capital.

### RESEARCH METHODOLOGY

To achieve the above objectives, the study performs a "Cross Sectional Analysis" across the industries. The sample consists of registered micro units having the age of 10 or more. The sample size selected was 100, which is 10 industries from manufacturing sector represented by 10 Micro units in each sector. Within the industry Micro units which have complete data for all the 10 years and those have higher turnover in addition, have been chosen for the study. Convenience sampling method is used for selecting the samples. The period of study is from 2004 to 2014. Ratio Analysis, One way ANOVA, Standard Devia-

tion, Mean Deviation, Coefficient of Variation etc are the tools used in the study.

### STRUCTURE OF WORKING CAPITAL

The structure of working capital refers to the components of the working capital. The major two components of working capital are current assets and current liabilities. Current assets means

- ❖ Stock in hand
- ❖ Debtors or Receivables
- ❖ Cash and Bank balance and
- ❖ Other current assets

Current liabilities are short term obligations which should be paid within one year. It includes

- ❖ Creditors or payables
- ❖ Bank overdraft
- ❖ Outstanding expenses and
- ❖ Other similar liabilities.

The present study focus on the structure of working capital and the proportions of the various components included in it and the way it affects the total working capital using current ratio and Current asset to total asset ratio. The structure of working capital may vary from industry to industry depends upon the nature of the industry and its working capital policies.

### Current ratio

Current ratio is the ratio between current assets and current liabilities. It shows the ability of a firm to meet its current obligations.

### Current asset ratio

**Table 4.1.9**

| Year | Tyre  | Tube  | Bands | Chappels | Washer | Belts | Mats  | Threads | Bags  | Coverings |
|------|-------|-------|-------|----------|--------|-------|-------|---------|-------|-----------|
| 2003 | 2.654 | 3.001 | 3.636 | 3.849    | 2.931  | 4.288 | 3.485 | 4.284   | 4.649 | 2.968     |
| 2004 | 2.623 | 3.378 | 3.989 | 3.989    | 2.808  | 3.941 | 3.287 | 4.136   | 5.144 | 2.995     |
| 2005 | 2.469 | 3.252 | 3.483 | 3.747    | 2.966  | 3.906 | 3.874 | 4.318   | 4.528 | 2.956     |
| 2006 | 2.35  | 2.814 | 3.76  | 3.759    | 2.846  | 3.758 | 4.419 | 3.857   | 4.247 | 3.212     |
| 2007 | 2.168 | 2.936 | 3.89  | 3.193    | 2.836  | 3.453 | 4.477 | 4.875   | 3.977 | 3.209     |
| 2008 | 2.217 | 2.764 | 3.512 | 3.316    | 2.991  | 4.145 | 4.955 | 3.312   | 3.947 | 3.115     |
| 2009 | 2.244 | 2.659 | 3.45  | 3.579    | 2.909  | 3.954 | 3.895 | 3.619   | 4.003 | 3.252     |
| 2010 | 2.243 | 2.643 | 3.128 | 3.249    | 3.221  | 3.963 | 4.155 | 3.503   | 3.956 | 3.366     |
| 2011 | 2.113 | 2.509 | 3.456 | 2.966    | 3.148  | 3.611 | 3.799 | 3.375   | 3.953 | 2.989     |
| 2012 | 2.518 | 2.515 | 3.129 | 2.909    | 3.125  | 3.911 | 3.983 | 3.137   | 3.767 | 3.119     |
| Mean | 2.36  | 2.851 | 3.563 | 3.406    | 2.978  | 3.893 | 4.083 | 3.9     | 4.277 | 3.118     |
| SD   | 0.184 | 0.278 | 0.247 | 0.35     | 0.135  | 0.329 | 0.477 | 0.488   | 0.415 | 0.133     |
| CV   | 0.078 | 0.098 | 0.069 | 0.103    | 0.045  | 0.085 | 0.119 | 0.125   | 0.097 | 0.043     |

Current ratio is calculated by dividing current asset with current liabilities. If the current ratio is 1, that means current asset is equal to current liabilities. In other words, the entire current liabilities can be set off with the existing current assets. But the industry standard of current ratio is 2:1, which means the entire liabilities should be disposed using half of the current assets.

From Table 4.1.9 it is clear that, the mean value is high in Bag industries (4.227) and is low in Tyre industry(2.36). Mats and Belt industries have mean value close to the Bag industries which shows they also have higher performance. Tube and Washer industries shows lower performance while others have moderate performance. The coefficient of variation is high in Thread industry(0.125) and have low in Covering industry(0.043).Tyre, Tube and Washer industries alone keep the industrial standards.

**ANOVA for Current Ratio**  
**Table 4.1.10**

|                   | Sum of squares | Degrees of freedom | Mean square | F Value  | Significance |
|-------------------|----------------|--------------------|-------------|----------|--------------|
| Between Groups    | 32.80919       | 9                  | 3.645466    | 32.13711 | **           |
| Within the groups | 10.20913       | 90                 | 0.113435    |          |              |
| Total             | 43.01832       | 99                 |             |          |              |

\*\* Significance at 1% level

The ANOVA calculation from Table 4.1.10 shows the F value as 32.13711 and is significant at 1% level. ANOVA test is conducted to find out whether there is any significant difference between the industries during the study period. Since the test shows significance at 1% level, there is significant difference among the industries during the period of study.

**Current asset to Total asset Ratio**

The Current asset to Total asset ratio shows the proportion of Current assets in Total assets. Based on some previous study Current asset to Total asset ratio is one of the powerful tool to explain the extend of Current asset in each industry. It also helps us to know about the structure of the components of Current assets( Inventories, Receivables and Cash balances). The table shown below gives the ratio of different industries during the study period.

**Average Current asset to Total asset Ratio**  
**Table 4.1.1**

| Year | Tyre  | Tube   | Bands  | Chappell | Washer | EeRs   | Mats   | Threads | Bags  | Coverings |
|------|-------|--------|--------|----------|--------|--------|--------|---------|-------|-----------|
| 2001 | 0.595 | 0.383  | 0.512  | 0.759    | 0.405  | 0.666  | 0.417  | 0.598   | 0.521 | 0.543     |
| 2004 | 0.565 | 0.356  | 0.494  | 0.753    | 0.415  | 0.634  | 0.389  | 0.659   | 0.523 | 0.548     |
| 2005 | 0.547 | 0.364  | 0.462  | 0.703    | 0.408  | 0.649  | 0.388  | 0.639   | 0.551 | 0.547     |
| 2006 | 0.535 | 0.32   | 0.48   | 0.663    | 0.405  | 0.693  | 0.416  | 0.578   | 0.571 | 0.557     |
| 2007 | 0.568 | 0.351  | 0.492  | 0.67     | 0.411  | 0.638  | 0.442  | 0.571   | 0.569 | 0.551     |
| 2008 | 0.536 | 0.358  | 0.525  | 0.731    | 0.416  | 0.635  | 0.489  | 0.536   | 0.518 | 0.572     |
| 2009 | 0.523 | 0.35   | 0.541  | 0.717    | 0.415  | 0.633  | 0.443  | 0.521   | 0.569 | 0.579     |
| 2010 | 0.521 | 0.384  | 0.508  | 0.757    | 0.405  | 0.671  | 0.449  | 0.517   | 0.462 | 0.579     |
| 2011 | 0.474 | 0.359  | 0.513  | 0.758    | 0.399  | 0.641  | 0.384  | 0.489   | 0.429 | 0.585     |
| 2012 | 0.486 | 0.351  | 0.475  | 0.756    | 0.385  | 0.656  | 0.371  | 0.487   | 0.417 | 0.551     |
| Mean | 0.529 | 0.3616 | 0.5002 | 0.7267   | 0.4044 | 0.6516 | 0.4191 | 0.5565  | 0.507 | 0.5613    |
| SD   | 0.033 | 0.02   | 0.022  | 0.035    | 0.008  | 0.018  | 0.034  | 0.053   | 0.051 | 0.015     |
| CV   | 0.064 | 0.057  | 0.046  | 0.049    | 0.022  | 0.029  | 0.083  | 0.096   | 0.102 | 0.027     |

**ANOVA for Average current asset to Total assets**  
**Table 4.1.2**

|                   | Sum of squares | Degrees of freedom | Mean square | F Value  | Significance |
|-------------------|----------------|--------------------|-------------|----------|--------------|
| Between Groups    | 1.118621       | 9                  | 0.124291    | 104.5124 | **           |
| Within the groups | 0.107032       | 90                 | 0.001189    |          |              |
| Total             | 1.225654       | 99                 |             |          |              |

\*\* Significance at 1% level

The highest mean value in Average current asset to Total asset is found to be in Chappell industry (0.727) and the lowest is in Tyre industry(0.362) during the study period. Except chappell industry others did not shown growth in ratio over a period of time. The proportion of current asset to total assets is higher in Chappell industry compared with other industries. The other industries current assets to total assets ranges from 30% to 60%. He chappell industry always shows the ratio higher than 70% except in 5th year(0.67). The least one tyre industry always shown a constant ratio around 30%. Results from standard deviation and Coefficient of variation shows fluctuations are high in Thread industry and low in washer industry.

ANOVA is calculated to findout whether there exists any significant difference among the industries in Average current asset to Total assets ratio. The F test value obtained from Table 4.1.2 shows 104.5124 and it is found to be significant at 1% level. This means that Current asset to total asset ratio had significant differences among the industries during the period of study.

**FINDINGS AND SUGGESTIONS**

The Analysis of the structure of working capital based on the selected financial ratios revealed the following results. It is observed that

The liquidity position shown by Current ratio is favorable to Bag, Mat, Tyre and Belt industries.

Among the total assets, more than 60% are current assets in Belt Industry and in Chappell industry. In case of Tyre, Band, Thread, Bags and Covering industry it is above 50% and in case of Tube, Washer and Mats the size of current asset is less than 50%.

The ANOVA calculations shows there is significant difference between the industries during the study period.

**CONCLUSION**

The working capital structure differs from industries to industries which is not a good sign because, similar firms operating under same environment naturally should follow similar working capital structure. The proportions of various components of working capital differs from companies to companies. In addition the weak working capital structure followed by the firms unnecessarily pushes up the total working capital requirement.

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