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Liquidity Analysis of Indian Tyre Industry – A Study on Jk Tyre and Industries Limited

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ABSTRACT

The Indian tyre industry has been witnessing tremendous growth for the past few years on account of growth in automobiles demand, especially in passenger vehicles and two-wheeler segments. The tyre industry has been chosen for this study because it is one of the important and fastest growing sectors in Indian economy and data from a reasonable number of industries would be easy to find. Liquidity management is very important for every organization that means to pay current obligations on business, the payment obligations include operating and financial expenses that are short term but maturing long term debt. Liquidity ratios are calculated to measure the short-term solvency of the business, i.e. the firm's ability to meet its current obligations. The past five years of annual financial reports of the JK tyre and industries limited from 2011-2012 to 2015-2016 will be used in this study. These are analysed by looking at the amounts of current assets and current liabilities in the balance sheet. The scope of the present study is liquidity position of selected Indian tyre industry. Current ratio and quick ratio is vital to analyze the liquidity position of the firm.

Key Words: Current Ratio, Liquid Ratio, Cash Position Ratio, Inventory Turnover Ratio, Debtors Turnover Ratio and Creditors Turnover Ratio.

1. INTRODUCTION

Financial Ratios are useful indicators to measure company's performance and financial situation. Liquidity management is very important for every organization that means to pay current obligations on business, the payment obligations include operating and financial expenses that are short term but maturing long term debt. According to Shim and Siegel has defined as accounting liquidity is the company's capacity to liquidate maturing short-term debt within one year. Maintaining adequate liquidity is much more than a corporate goal and is a condition without which it could not reach the continuity of a business. According to Archer and Ambrosio, liquidity means cash and cash availability, and it is from current operations and previous accumulations that cash is available, to take care of the claims of both the short-term suppliers of capital and the long-term ones. It has two dimensions; the short-term and the long-term liquidity. Liquidity ratios are calculated to measure the short-term solvency of the business, i.e. the firm's ability to meet its current obligations. These are analysed by looking at the amounts of current assets and current liabilities in the balance sheet. Short-term liquidity implies the capacity of the undertaking to repay the short-term debt which means the same as the ability of the firm in meeting the currently maturing obligations from out of the current assets. The purpose of the short-term analysis is to derive a picture of the capacity of the firm to meet its short-term obligations out of its short-term resources, that is, to estimate the risk of supplying short-term capital to the firm.

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FUNCTIONS OF LIQUIDITY

In looking for sufficient liquidity to carry out the firm's activities, following functions have to be carried out:

- Forecasting cash flows: Successful day-to-day operations require the firm to be able to pay its bills promptly. This is largely a matter of matching cash inflows against outflows. The firm must be able to forecast the sources and timing of inflows from customers and use them to pay creditors and suppliers.
- Raising funds: The firm receives financing from a variety of sources. At different times some sources will be more desirable than others. A possible source may not; at a given point of time have sufficient funds available to meet the firm's needs. So the financial manager must identify the amount of funds available from each source and the periods when they will be needed.
- Managing the flow of internal funds: A large firm has a number of different bank accounts for various operating divisions or for special purposes. The money that flows among these internal accounts should be carefully monitored.

INDIAN TYRE INDUSTRY

The Indian tyre industry has been witnessing tremendous growth for the past few years on account of growth in automobiles demand, especially in passenger vehicles and two-wheeler segments. In fact, availability of raw material (natural rubber) and ultramodern production facilities has led the country to emerge as one of the world's most competitive tyre markets. Driven by the strong demand in automobile OEM sector and replacement market, the India tyre industry has been witnessing stupendous growth from since the last two fiscal years. India's market for radial tyres in commercial vehicles section is still in its infancy. The passenger car segment switched to radial tyres in a short period of time, with radial tyre penetration level for the category reaching 100%.
However, penetration level of radial tyre has also started to increase rapidly in the light commercial vehicles and truck & bus segment. This segment will be the largest growth area over the next few years.The tyre companies are looking for overseas plantation of rubber to meet their raw materials need which will help the companies to acquire raw material at cheaper prices. Further, tubeless tyres are gaining ground in Indian market as almost all the automobile manufacturers are launching their vehicles with tubeless tyres. This shows that tubeless tyre market has tremendous growth opportunity in the coming years. Moreover, top tyre companies in Indian such as MRF, Apollo tyres, JK tyres, CEAT have strong hold in the market, however they face immense competition from global tyre companies such Bridgestone, Goodyear etc. to sell their products in the Indian markets. The Indian MNCs too have set up units in various overseas countries and some like Apollo Tyres are even acquiring companies there.

2. REVIEW OF LITERATURE

Raheman and Nasr (2007) in their study made an attempt to show the effect of different variables of working capital management including average collection period, inventory turnover in days, average payment period, cash conversion cycle, and current ratio on the net operating profitability of Pakistani firms. They selected a sample of 94 Pakistani firms listed on Karachi Stock Exchange for a period of six years from 1999 – 2004 and found a strong negative relationship between variables of working capital management and profitability of the firm. They found that as the cash conversion cycle increases, it leads to decreasing profitability of the firm and managers can create a

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positive value for the shareholders by reducing the cash conversion cycle to a possible minimum level.

Chakraborty and Bandopadhyay (2007) in their research studied strategic working capital management, and its role in corporate strategy development, ultimately ensuring the survival of the firm. They also highlight how strategic current asset decisions and strategic current liabilities decisions had multi-dimensional impact on the performance of a company. **Singh and Pandey (2008)** in their research suggested that, for the successful working of any business organization, fixed and current assets play a vital role, and that the management of working capital is essential as it has a direct impact on profitability and liquidity. They studied the working capital components and found a significant impact of working capital management on profitability for Hindalco Industries Limited.

Bhavsinh Dodiya (2012) in his study the analysis of liquidity in Indian car industry of selected companies as measured the short term solvency position on a sample of four companies during 2005 – 2006 to 2009 – 2010. The current ratio in the car industry on the whole depicts a decreasing trend during the period covered by the study. Under the study has the average current ratio below the average ration of car industry. It can be seen that the quick ratio of Maruthi Suzuski ltd. was the highest followed by other selected car companies. Maruthi suzuski ltd maintained the standard norms of the ratio while other selected companies under the study did not hold a reasonable and satisfactory position of liquidity. **Shweta Mehrotra (2013)** in his studies the working capital trends and liquidity analysis of FMCG Sector in India as examined the liquidity position on a sample of five FMCGs companies. The study is based on secondary data of annual reports of the selected companies. The period of study is five years and traditional method of analysis and ratio analysis as tools of financial statement analysis for examine the degree of efficiency of working capital management has been adopted.

Mohamad Mushtaq Khan and Syed Khaja Safiuddin (2016) in their study an attempt the liquidity and profitability performance analysis of select pharmaceutical companies. The analysis is based on financial statements of the two pharmaceutical companies during 2010 to 2014. The present study was to measure the liquidity and profitability ratios of the selected pharmaceutical companies. It concludes there is a vast difference in the performance of selected pharmaceutical companies in terms of liquidity and profitability.

3. OBJECTIVES OF THE STUDY

The main objective of the present study is to analyze the liquidity position of selected tyre industry.

METHODOLOGY OF THE STUDY

The scope of the present study is liquidity position of selected Indian tyre industry. The tyre industry has been chosen for this study because it is one of the important and fastest growing sectors in Indian economy and data from a reasonable number of industries would be easy to find. Current ratio and quick ratio is vital to analyze the liquidity position of the firm. The past five years of annual financial reports of the JK tyre and industries limited from 2011-2012 to 2015-2016 will be used in this study.

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The data used in the present study was acquired from the annual reports of the selected industries. The analysis is based on financial statements of the JK tyre and industries. The present study carries out the issue of recognizing key variables that the influence financial performance. Liquidity ratios static measurement of liquidity determines the relation between current assets and short-term liabilities. The ratios based on this relation are the relationship of various ranges of current assets with different liquidity levels to short-term liabilities.

ANALYSIS AND INTERPRETATION OF DATA

The concept of liquidity within a business is vital to the understanding of financial management as it is the basic criteria of testing the short term liquidity position of the tyre enterprise. For the analysing of liquidity of tyre industry following ratio have been computed.

- Current Ratio
- Liquid Ratio or Quick Ratio
- Cash Position Ratio
- Inventory Turnover Ratio
- Debtors Turnover Ratio.
- Creditors Turnover Ratio

CURRENT RATIO

Current ratio is the relationship between the current assets and current liabilities. The current ratio is a measure of the firm's short-term solvency position. The current ratio is calculated by dividing current assets by current liabilities.

Current Ratio = Current Assets / Current Liabilities

It indicates the availability of current assets in rupees for every one rupee of current liabilities. A ratio of greater than one means that concern has more current assets than current liabilities. As a conventional rule, a current ratio of 2:1 or more is considered satisfactory. It is generally believed that 2:1 ratio shows a comfortable working capital position, i.e. the current assets should be twice the current liabilities. However, this rule should not be taken as hard and fast rule, because a ratio which is satisfactory for one business may not be satisfactory for the other. The Table 1 current ratio of JK tyre and industries limited is given below;

CURRENT RATIO OF JK TYRE AND INDUSTRIES LTD. (RS. IN CRORES)

YEAR	CURRENT ASSETS	CURRENT LIABILITIES	RATIO
2011 – 2012	1960.73	2179.25	0.90
2012 – 2013	2114.07	2315.10	0.91
2013 – 2014	2383.76	2503.94	0.95
2014 – 2015	2477.47	2713.32	0.91
2015 – 2016	2576.72	2684.30	0.96
Mean			0.93
Standard Deviation			0.74
Co-efficient Variation (%)			79.57

Source: Computed from Annual Report of JK Tyre and Industries

TABLE NO 1

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It stated that the above Table 1 indicates that the current ratio of JK Tyre and Industries limited during the study period is not satisfactory as its average is 0.93. The current ratio is less than the ideal ratio of 2:1 in all the years which means that the tyre industry is not enjoying credit worthiness. The coefficient variation of current ratio of JK tyre and industry is 79.57% during the study period.

QUICK RATIO

Quick ratio is also known as liquidity ratio. Liquid ratio is a more than rigorous test of 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 current liabilities.

Quick Ratio = Quick Assets / Current Liabilities

Usually, a high acid test ratio is an indication that the firm is liquid and has the ability to meet its current or liquid liabilities in time and on the other hand a low quick ratio represents that the firm's liquidity position is not good. As a rule of thumb or as a convention quick ratio of 1:1 is considered satisfactory. It is generally through that if quick asset are equal to current liabilities than the concern may be able to meet is short–term obligations. The following Table 2 of quick ratio of JK Tyre and Industries limited.

QUICK RATIO OF JK TYRE AND INDUSTRIES LTD. (RS. IN CRORES)

YEAR	QUICK ASSETS	CURRENT LIABILITIES	RATIO
2011 – 2012	1209.34	2179.25	0.55
2012 – 2013	1186.80	2315.10	0.54
2013 – 2014	1504.80	2503.94	0.60
2014 – 2015	1560.47	2713.32	0.58
2015 – 2016	1532.09	2684.30	0.57
Mean			0.57
Standard Deviation			0.45
Co-efficient Variation (%)			78.95

Source: Computed from Annual Report of JK Tyre and Industries

TABLE NO 2

In the above Table 2 shows that the quick ratio of JK tyre and industries limited over the period of five years from 2011-2012 to 2015-2016 is presented. The maximum value of mean of quick ratio was 0.57 during the study period. The CV of quick ratio shows the maximum value of 78.95 percent in the case of which indicates highest variability in the study period. The liquidity ratio is less than the standard ratio is 1:1; the liquidity position of the present study was not satisfactory of the selected industry.

CASH POSITION RATIO

It is also known as absolute liquid ratio. Although receivables, debtors and bills receivables are generally more liquid than inventories, hence, some authorities are of the opinion that the absolute liquid ratio should also be calculated together with current ratio and acid test ratio so as to exclude even receivables from the current assets and find out the absolute liquid assets.

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Cash Ratio = Cash and Bank + Short Term Securities / Current Liabilities

The following Table 3 cash position ratio of JK Tyre and industries limited of the period from 2011 – 2012 to 2015 -2016 is presented.

CASH POSITION RATIO OF JK TYRE AND INDUSTRIES LTD. (RS. IN CRORES)

YEAR	CASH + MARKETABLE SECURITIES	CURRENT LIABILITIES	RATIO
2011 – 2012	749.02	2179.49	0.34
2012 – 2013	836.59	2315.10	0.36
2013 – 2014	1026.20	2503.94	0.40
2014 – 2015	1191.68	2713.32	0.43
2015 – 2016	1479.11	2684.30	0.55
Mean			0.45
Standard Deviation			0.33
Co-efficient Variation (%)			73.33

Source: Computed from Annual Report of JK Tyre and Industries

TABLE NO 3

From the above Table 3 shows that the cash position ratio of JK tyre and industries limited over the period of five years from 2011 - 2012 to 2015 - 2016. The maximum of cash position ratio average was 0.45 in the case of study period. The maximum standard deviation of absolute cash position ratio was 0.33. The maximum CV of cash position ratio of 73.33 percent was found in cash of which indicates the lowest variability or consistency.

INVENTORY TURNOVER RATIO

Inventory Turnover ratio also known as stock velocity. It indicates the number of times the stock has been turned over the period and evaluates the efficiency with which a firm is able to manage its inventory. It is normally calculated as sales or average inventory or cost of goods sold or average inventory. It would indicate whether inventory has been efficiently used or not. The purpose is to see whether only the required minimum funds have been locked up in inventory.

Inventory Turnover Ratio = Cost of Goods Sold / Average Inventory at Cost

It is stated that the Table 4 inventory turnover ratio of JK Tyre and Industries limited is presented the study period from 2011-2012 to 2015-2016 is given below.

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INVENTORY TURNOVER RATIO OF JK TYRE AND INDUSTRIES LTD. (RS. IN CRORES)

YEAR	COST OF GOODS SOLD	AVERAGE INVENTORY	RATIO (IN TIMES)
2011 – 2012	4400.67	323.64	13.59
2012 – 2013	3914.39	384.83	10.17
2013 – 2014	4744.72	463.41	10.23
2014 – 2015	4236.12	422.95	10.02
2015 – 2016	3716.02	792.19	4.69
Mean			9.74
Standard Deviation			17.42
Co-efficient Variation (%)			78.85

Source: Computed from Annual Report of JK Tyre and Industries

TABLE NO 4

In the above Table 4 shows that the JK tyre and industries limited during the study period of average inventory turnover ratio. The average mean of 9.74, the standard deviation of 17.42 and the coefficient of variation of the average of stock of 78.85 percent respectively of the present study period satisfactory trend in the average of inventory turnover.

DEBTORS TURNOVER RATIO

Debtor's turnover ratio indicates the velocity of debt collection of firm. In simple words, it indicates the numbers of times of average debtors are turned over period of the year.

Debtors Turnover Ratio = Total Sales / Debtors

This ratio should be compared with ratios of other firms doing similar business and a trend may also be found to make a better interpretation of the ratio.

DEBTORS TURNOVER RATIO OF JK TYRE AND INDUSTRIES LTD. (RS. IN CRORES)

YEAR	TOTAL SALES	DEBTORS	RATIO
2011 – 2012	5643.71	867.36	6.50
2012 – 2013	5430.83	916.68	5.92
2013 – 2014	5951.08	1186.37	5.02
2014 – 2015	6125.23	1256.19	4.88
2015 – 2016	5880.43	1210.48	4.85
Mean			5.43
Standard Deviation			9.72
Co-efficient Variation (%)			179.00

Source: Computed from Annual Report of JK Tyre and Industries

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The above Table 5 shows that the debtors turnover ratio of JK tyre and industries limited over the period from 2011 - 2012 to 2015 - 2016. The maximum of debtors' turnover ratio of average of 5.43 of JK tyre and industries limited during the study period. The standard deviation of 9.72 and the maximum coefficient variation value of debtors turnover ratio of 179.00 in case of which indicates that there is highest variability.

CREDITORS TURNOVER RATIO

In the course of business operations, a firm has to make credit purchase and incur short term liabilities. The creditors' turnover is basically the same as debtors turnover ratio except that in place of trade debtors, the trade creditors are taken as one of the components of the ratio and in place of average daily sales, average daily purchases are taken as the other components of the ratio. The creditors' turnover ratio calculated as,

Creditors Turnover Ratio = Net Credit Annual Purchases / Average Trade Creditors

If information about credit purchases is not available, the figure of total purchases may be taken the numerator and the trade creditors include sundry creditors and bills payables. Table 6 creditors' turnover ratio JK Tyre and Industries limited as given below.

CREDITORS TURNOVER RATIO OF JK TYRE AND INDUSTRIES LTD. (RS. IN CRORES)

YEAR	NET CREDIT ANNUAL PURCHASE	AVERAGE TRADE CREDITORS	RATIO
2011 - 2012	4108.59	1030.17	3.98
2012 - 2013	3872.80	748.96	5.17
2013 - 2014	3972.66	903.44	4.39
2014 - 2015	3861.62	902.64	4.27
2015 - 2016	3311.92	830.41	3.99
Mean			4.36
Standard Deviation			7.80
Co-efficient Variation (%)			178.90

Source: Computed from Annual Report of JK Tyre and Industries

The above Table 6 shows that the creditors turnover ratio of JK tyre and industries limited over the study period from 2011 - 2012 to 2015 – 2016. The average mean of 4.36, the maximum standard deviation of 7.80 and the coefficient variation of the creditors 178.90 respectively. It shows that more consistency during the study period in the industry, as whole, coefficient of variation of in this study period.

4. CONCLUSION

Tyre industry has been chosen for this study because it is one of the important and fastest growing sectors in Indian economy and data from a reasonable number of industries would be easy to find. Liquidity management is very important for every organization that means to pay current obligations on business, the payment obligations include operating and financial expenses that are short term but maturing long term debt. The present study period from 2011-2012 to 2015-2016

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will be used. These are analysed by looking at the amounts of current assets and current liabilities in the balance sheet. The scope of the present study is liquidity position of selected Indian tyre industry. Current ratio and quick ratio is vital to analyze the liquidity position of the firm. The liquidity performance of this company is satisfaction of year to year, the industry growth of good performance of future. In this industry overall liquidity performances is not good and take necessary steps to improve the industry.

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