

A Study on Liquidity and Profitability Analysis of Selected Companies of Indian Automobile Industry

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ABSTRACT

The Indian automobile industry is one of the largest in the world with an annual production of 25.3 million vehicles in FY 2016-17. The automobile industry accounts for 7.1 per cent of the country's gross domestic product (GDP) [1]. The study examines the liquidity and profitability position of selected companies of automobile industry for the past five years. It involves in-depth analysis of performance of the selected companies with the help of key ratios, statistical analysis and Anova. The results show that there is significant difference in liquidity and profitability position of selected companies.

Keywords

Liquidity position, Profitability position, RONW

INTRODUCTION

In the present study, liquidity means the short-term liquidity which refers to the ability of the undertakings to pay off current liabilities. This is chosen because the study relates to the management of short-term assets and liabilities. . If current assets can pay off current liabilities, then liquidity position will be satisfactory. If current liabilities may not be easily met out of current assets then liquidity position will be bad. The bankers, suppliers of goods and other short term creditors are interested in the liquidity of the company. An analysis of profitability reveals the profit position stands as a result of total transactions made during the year, such analysis is particularly help to the suppliers of funds who can evaluate their investment and take decision accordingly. On the other hand, profit ratios are equally helpful to the management because these ratios reflect the efficiency of the enterprise as a whole.

COMPANY PROFILE

Tata Motor Limited:

Tata Motors Limited (formerly TELCO, short for Tata Engineering and Locomotive Company) is an Indian multinational automotive manufacturing company headquartered in Mumbai, India, and a member of the the Tata Group. Its products include passenger cars, trucks, vans, coaches, buses, construction equipment and military vehicles. Tata Motors is listed on the (BSE) Bombay Stock Exchange, where it is a constituent of the BSE SENSEX index, the National Stock Exchange of India, and the New York Stock Exchange. The company is ranked 226th on the Fortune Global 500 list of the world's biggest corporations as of 2016[2].

Maruti Suzuki India Limited:

Maruti Suzuki India Limited, formerly known as Maruti Udyog Limited, is an automobile manufacturer in India. It is a subsidiary of Japanese automobile and motorcycle manufacturer Suzuki. As of November 2012, it had a market share of 50% of the Indian passenger car markets. Maruti Suzuki manufactures and sells popular cars such as the Alto, Ritz, Celerio, Swift, WagonR, Zen ZenEstilo, SwiftDZire, Ciaz, Kizashi, SX4, Eeco, Omni, Ertiga, S-Cross and the Grand Vitara [3].

Mahindra and Mahindra Limited:

Mahindra and Mahindra Limited (M&M) is an Indian multinational automobile manufacturing corporation headquartered in Mumbai, Maharashtra, India. It is one of the largest vehicle manufacturers by production in India and the largest manufacturer of tractors across the world. It is a part of Mahindra Group, an Indian conglomerate. It was ranked as the 10th most trusted brand in India, by The Brand Trust Report, India Study 2014. It was ranked 21st in the list of top companies of India in Fortune India 500 in 2011[4].

REVIEW OF LITERATURE

- **Ray (2012)**, the author tries to evaluate the performance of Indian automobile industry in terms of various financial indicators, sales trend, production trend, export trend etc. for the period of 2003-04 to 2009-10. The result suggests that the industry has been passing through unsettled phases due to more debt burden, low utilization of assets. The industry need to improve labour productivity, labour flexibility, and capital efficiency.
- **Rakhi Hotwani (2013)** the author examines the profitability position and growth of company in light of sales and profitability of Tata Motors for past ten years. Data is analyzed through ratios, standard deviations and coefficient of variance. The study reveals that there not exists a strong relationship between sales & profitability of company.
- **B.Anu (2015)** made an attempt to examine the impact of capital structure on MPS and also debt-equity on MPS of selected companies in industry. The present studies find out that all three companies support the hypothesis that there is relation between debt-equity and MPS.
- **K.Jothi, & Kalaivani (2015)** this study find that the comparative performance of Honda Motors and Toyota Motor that both companies have satisfactory short term liquidity position.
- **M.Ravichandran & Subramaniam (2016)** the main idea behind this study is measure operating position of the company by using various financial tools such as profitability ratio, solvency ratio, comparative statement & graphs etc. This study finds that company has got enough funds to meet its debts & liabilities.
- **Shivam Mathur & Krati Agarwal (2016)** in this paper author tried to examine the financial performance of two firms of automobile industry. Financial position is analyzed by using different ratios and charts during 2012-14. The study result reveals that Maruti Suzuki limited is better than Tata motors limited.
- **V. Maheswari (2015)** made an attempt to analyze the financial soundness of the Hero Honda motors

limited have identified three factors, namely liquidity position, solvency position and profitability position based on the study of period 2002 to 2010 using ratio analysis.

OBJECTIVES OF THE STUDY

- To analyze the liquidity position of the selected automobile companies.
- To analyze the profitability position of the selected automobile companies.
- To suggest recommendations for future growth and development of the select industries in India.

RESEARCH METHODOLOGY

Source of Data: The study is based on secondary data that has been collected from annual reports of the respective company and money.rediff.com.

Sample Size: Three companies are taken into consideration. Those are as follows:

- Tata Motors
- Maruti Suzuki
- Mahindra & Mahindra

Period of Study: The period of study covers 5 years (2012-2013 to 2016-2017).

Statistical Tools for Analysis:

- Ratio analysis
- ANOVA single factor

Limitation of the Study:

The limitations of the study are:

- The study is based on the secondary data and the limitation of using secondary data may affect the results.
- The secondary data was taken from the annual reports of the company. It may be possible that the data shown in the annual reports may be window dressed which does not show the actual position of the company.

DATA ANALYSIS AND FINDINGS

A) Liquidity Ratios

Table 1. Current Ratio of the Selected Companies

| Year | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | Average | Standard Deviation | Co-efficient of Variance |
|---------------|---------|----------|---------|----------|----------|----------|--------------------|--------------------------|
| Company | | | | | | | | |
| M&M | 0.99 | 1.02 | 1.19 | 1.06 | 1.04 | 1.06 | 0.077136 | 7.277004 |
| Tata Motor | 0.62 | 0.64 | 0.60 | 0.74 | 0.71 | 0.662 | 0.060166 | 9.088585 |
| Maruti Suzuki | 1.33 | 1.17 | 0.88 | 0.68 | 0.63 | 0.938 | 0.305074 | 32.52386 |
| Average | 0.98 | 0.943333 | 0.89 | 0.826667 | 0.793333 | 0.886667 | 0.136762 | 15.42429 |

Source: data is collected from www.money.rediff.com

The Current ratio of selected companies of car industry has been presented in the table no. 1. The current ratio in the car industry on the whole depicts a decreasing trend during the period covered by our study. We can say that the performance of Maruti Suzuki and Mahindra & Mahindra was better. The other company under the study has the average current ratio below the average ratio of the car industry. The standard deviation of Maruti Suzuki is 0.3050 which is more than the average of industry. It

means there is a more fluctuating in the current ratio of Maruti Suzuki Co. Ltd.

ANOVA TEST ON CURRENT RATIO

H₀: There would be no significant difference in current ratio of selected companies during period of study.

H₁: There would be significant difference in current ratio of selected companies during period of study.

Table 2. Analysis of Variance Test (ANOVA) on Current Ratio among the Groups of Selected Companies

| ANOVA | | | | | | |
|---------------------|----------|----|------------|------------|------------|-------------|
| Source of Variation | SS | df | MS | F | P-value | F crit |
| Between Groups | 0.415773 | 2 | 0.20788667 | 6.07618862 | 0.01504278 | 3.885293835 |
| Within Groups | 0.41056 | 12 | 0.03421333 | | | |
| Total | 0.826333 | 14 | | | | |

The table indicates the calculated value of F is 6.076. The table value of F is 3.885 at 5% level of significance which is lower than the calculated value of F. It indicates that the

null hypothesis is rejected and the alternative hypothesis will remain. The results show that there is significant difference in current ratio of selected companies.

Table 3. Quick Ratio of the Selected Companies

| Year | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | Average | Standard Deviation | Co-efficient of Variance |
|---------|----------|----------|----------|----------|----------|----------|--------------------|--------------------------|
| Company | | | | | | | | |
| M&M | 0.71 | 0.77 | 0.93 | 0.83 | 0.83 | 0.814 | 0.081731 | 10.0407 |
| Tata | 0.43 | 0.40 | 0.36 | 0.42 | 0.41 | 0.404 | 0.027019 | 6.687751 |
| Maruti | 1.03 | 0.89 | 0.67 | 0.41 | 0.37 | 0.674 | 0.28962 | 42.97039 |
| Average | 0.723333 | 0.686667 | 0.653333 | 0.553333 | 0.536667 | 0.630667 | 0.138547 | 21.9683 |

Source: data is collected from www.money.rediff.com

The Quick ratio of selected companies of car industry has been presented in the table no. 3. The quick ratio in the car industry on the whole depicts a decreasing trend during

the period covered by our study. We can say that the performance of Maruti Suzuki and Mahindra & Mahindra was better. The other company under the study has the

average quick ratio below the average ratio of the car Industry. The standard deviation of maruti Suzuki is 0.289 which is more than the average of industry. It means there is a more fluctuating in the quick ratio of Maruti Suzuki Co. Ltd.

ANOVA TEST ON QUICK RATIO

H₀: There would be no significant difference in quick ratio of selected companies during period of study.

H₁: There would be significant difference in quick ratio of selected companies during period of study.

Table 4. Analysis of Variance Test (ANOVA) on Quick Ratio among the Groups of Selected Companies

| ANOVA | | | | | | |
|---------------------|----------|----|----------|----------|----------|------------|
| Source of Variation | SS | Df | MS | F | P-value | F crit |
| Between Groups | 0.434333 | 2 | 0.217167 | 7.136598 | 0.009078 | 3.88529383 |
| Within Groups | 0.36516 | 12 | 0.03043 | | | |
| Total | 0.799493 | 14 | | | | |

The table indicates the calculated value of F is 7.136. The table value of F is 3.885 at 5% level of significance which is lower than the calculated value of F. It indicates that the

null hypothesis is rejected and the alternative hypothesis will remain. The results show that there is significant difference in quick ratio of selected companies.

B) PROFITABILITY RATIOS

Table 5. Gross Profit Ratio of the Selected Companies

| Year | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | Average | Standard Deviation | Co-efficient of Variance |
|---------|----------|---------|----------|---------|----------|---------|--------------------|--------------------------|
| Company | | | | | | | | |
| M&M | 10.02 | 9.88 | 9.52 | 8.21 | 8.46 | 9.218 | 0.831156 | 9.016661 |
| Tata | 4.73 | -0.22 | -8.69 | -10.58 | -0.32 | -3.016 | 6.412779 | -212.625 |
| Maruti | 3.86 | 5.43 | 6.89 | 8.49 | 10.65 | 7.064 | 2.639068 | 37.3594 |
| Average | 6.203333 | 5.03 | 2.573333 | 2.04 | 6.263333 | 4.422 | 2.00155 | 45.26346 |

Source: data is collected from www.money.rediff.com

The gross profit ratio of selected companies of car industry has been presented in the table no. 5. The gross profit ratio in Industry on the whole depicts a decreasing trend during first four years covered of the study and sudden increase in last year. We can say that the performance of Maruti Suzuki and Mahindra & Mahindra was better. Tata company not good in performance, under the study it has the average gross profit ratio below the average ratio of the car Industry. The Standard Deviation of Tata Company is 6.412 which are more than the average of industry. It

means there is a more fluctuating in the gross profit ratio of Tata Company.

ANOVA TEST ON GROSS PROFIT RATIO

H₀: There would be no significant difference in gross profit ratio of selected companies during period of study.

H₁: There would be significant difference in gross profit ratio of selected companies during period of study.

Table 6. Analysis of Variance Test (ANOVA) on Gross Profit Ratio among the Groups of Selected Companies

| ANOVA | | | | | | |
|---------------------|----------|----|----------|----------|----------|-----------|
| Source of Variation | SS | Df | MS | F | P-value | F crit |
| Between Groups | 426.5281 | 2 | 213.2641 | 13.11608 | 0.000956 | 3.8852938 |
| Within Groups | 195.1169 | 12 | 16.25974 | | | |
| Total | 621.645 | 14 | | | | |

The table indicates the calculated value of F is 13.116. The table value of F is 3.885 at 5% level of significance which is lower than the calculated value of F. It indicates that the

null hypothesis is rejected and the alternative hypothesis will remain. The results show that there is significant difference in gross profit ratio of selected companies.

Table 7. Net Profit Ratio of the Selected Companies

| Year | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | Average | Standard Deviation | Co-efficient of Variance |
|---------|---------|---------|---------|---------|---------|---------|--------------------|--------------------------|
| Company | | | | | | | | |
| M&M | 8.90 | 8.17 | 9.11 | 8.52 | 7.74 | 8.49 | 0.551879 | 6.501869 |
| Tata | 2.28 | 0.64 | 0.97 | -13.05 | 0.55 | -1.72 | 6.37039 | -369.941 |
| Maruti | 4.59 | 5.48 | 6.36 | 7.42 | 7.91 | 6.35 | 1.363184 | 21.4607 |
| Average | 5.26 | 4.76 | 5.48 | 0.96 | 5.40 | 4.37 | 3.15 | 72.06891 |

Source: data is collected from www.money.rediff.com

The NP ratio of selected companies of car industry has been presented in the table no. 7. The net profit ratio in Industry on the whole depicts a fluctuating trend during the period covered by our study. We can say that the performance of Maruti Suzuki and Mahindra & Mahindra was better. The other company under the study has the average NP ratio below the average ratio of Industry. The standard deviation of Tata Company is 6.37 which are more than the average of industry. It means there is a more fluctuating in the ratio of Tata Company.

ANOVA TEST ON NET PROFIT RATIO

H₀: There would be no significant difference in net profit ratio of selected companies during period of study.

H₁: There would be significant difference in net profit ratio of selected companies during period of study.

Table 8. Analysis of Variance Test (ANOVA) on Net Profit Ratio among the Groups of Selected Companies

| ANOVA | | | | | | |
|---------------------|----------|----|----------|-----------|------------|-------------|
| Source of Variation | SS | Df | MS | F | P-value | F crit |
| Between Groups | 289.9935 | 2 | 144.9967 | 10.176468 | 0.00260379 | 3.885293835 |
| Within Groups | 170.9788 | 12 | 14.24824 | | | |
| Total | 460.9723 | 14 | | | | |

The table indicates the calculated value of F is 10.176. The table value of F is 3.885 at 5% level of significance which is lower than the calculated value of F. It indicates that the

null hypothesis is rejected and the alternative hypothesis will remain. The results show that there is significant difference in net profit ratio of selected companies.

Table 9. Return on Net Worth Ratio of the Selected Companies

| Year | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | Average | Standard Deviation | Co-efficient of Variance |
|---------|----------|----------|---------|---------|---------|---------|--------------------|--------------------------|
| Company | | | | | | | | |
| M&M | 23.17 | 22.25 | 22.08 | 15.51 | 14.28 | 19.458 | 4.208547 | 21.62888 |
| Tata | 9.32 | 3.80 | 4.56 | -29.21 | 2.67 | -1.772 | 15.54629 | -877.33 |
| Maruti | 10.76 | 12.87 | 13.26 | 15.65 | 16.92 | 13.892 | 2.424494 | 17.45245 |
| Average | 14.41667 | 12.97333 | 13.3 | 0.65 | 11.29 | 10.526 | 7.116987 | 67.6134 |

Source: data is collected from www.money.rediff.com

The RONW ratio of selected companies of industry has been presented in the table no. 9. The RONW ratio in the Industry on the whole depicts a fluctuating trend during the period covered by our study. We can say that the performance of Maruti Suzuki and Mahindra & Mahindra was better. The other company under the study has the

average current ratio below the average ratio of the car Industry. The standard deviation of Tata Company is 15.546 which are more than the average of industry. It means there is a more fluctuating in the RONW ratio of Tata Company.

ANOVA TEST ON RONW RATIO

H₀: There would be no significant difference in RONW ratio of selected companies during period of study.

H₁: There would be significant difference in RONW ratio of selected companies during period of study.

TABLE 10. Analysis of Variance Test (ANOVA) on RONW Ratio among the Groups of Selected Companies

| ANOVA | | | | | | |
|---------------------|----------|----|----------|----------|----------|------------|
| Source of Variation | SS | df | MS | F | P-value | F crit |
| Between Groups | 1211.757 | 2 | 605.8785 | 6.851831 | 0.010354 | 3.88529383 |
| Within Groups | 1061.109 | 12 | 88.42577 | | | |
| Total | 2272.866 | 14 | | | | |

The table indicates the calculated value of F is 6.851. The table value of F is 3.885 at 5% level of significance which is lower than the calculated value of F. It indicates that the null hypothesis is rejected and the alternative hypothesis will remain. The results show that there is significant difference in RONW ratio of selected companies.

CONCLUSION

A study has been highlighted the liquidity and profitability position of automobile industry. Hence, it is suggested that all companies should maintain ideal current ratio & quick ratio.

Performance of Mahindra and Mahindra Ltd and Maruti Suzuki is quite satisfactory but as so far Tata company performance going down year by year. Tata Company needs to generate good profits and also maintain liquidity position to face the competition in industry.

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