



**A COMPARATIVE ANALYSIS ON FINANCIAL  
PERFORMANCE OF INDIAN AUTOMOBILE COMPANIES  
WITH REFERENCE TO MAHINDRA AND MAHINDRA  
LIMITED AND MARUTI SUZUKI INDIA LIMITED**

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**Abstract:**

The automobile industry is an important part of the manufacturing sector and considered to be an indicator of economic development of any country. The present study aims to measure the short term and long term solvency, working capital requirements and profitability of Mahindra and Mahindra Limited and Maruti Suzuki India Limited by applying ratios and statistical tools like Mean, Standard Deviation, Co-efficient of Variation, CAGR and test of hypothesis- t test. A comparative analysis of the results has been made. The study has been undertaken for the period of ten years from 2006-07 to 2015-16. The result of the study shows both the companies have to improve their short term and long term solvency position and profitability ratios prove their efficient performance.

**Key Words:** Liquidity, Profitability, Leverage, Working Capital.

**1. Introduction:**

The development of a country can be measured with its development in infrastructure including transportation system. An efficient transport helps in increasing productivity and enhances competitiveness of the economy. The automobile industry is an important part of the manufacturing sector and considered to be an indicator of economic development of any county. It was recorded tremendous growth over the years and has emerged as a major contributor to India's Gross Domestic Product. It contributes 22 per cent of the country's manufacturing, Gross Domestic Product, 7.1 per cent of the country's GDP. The overall growth of Indian automobile exports was 1.91 per cent passenger vehicle, commercial vehicle and two wheelers had more growth of 5.24 per cent, 16.97 per cent and 0.97 per cent respectively during April 2015–March 2016. It is important to know that how this growing sector is affecting the financial performance of companies under this sector. The present study takes two companies in the passenger vehicle segment of Indian automobile companies and compares their operational efficiency and financial strength in this sector. The foremost purpose of financial analysis of the firm is to assess the performance of the firms under the study of a number of aspects such as their resources, ability to earn profit or fair return on their investment, ability to meet their obligations, value of assets, the extent and nature of their liabilities etc.

**2. Statement of the Problem:**

Financial performance analysis is the process of determining the operating and financial status of the firm. The ability of an organization lies in the employment of resources for improving its competitive position in the market. Through a careful analysis of its financial performance, the organization can identify opportunities to improve performance of the department, unit or organizational level. In this context, an attempt has been made firstly to analyse how management of finance plays a crucial role in the growth and secondly how their performance have been improved for both the automobile companies under study.

**3. Objectives of the Study:**

The main objective of the present study are to make the comparative measure related to short term and long term solvency, working capital requirements and profitability of Mahindra and Mahindra Limited and Maruti Suzuki India Limited.

**4. Review of Literature**

Meenakshi Anand (2014) analyzed profitability, liquidity and solvency position of textile companies. The researcher had applied comparative ratio analysis to know the financial strength of the textile companies. The result of the study showed that profitability, margins had slightly differed due to volatility in textiles market and raw material prices. The liquidity and solvency position were almost the same in all textile companies. Sumesh Kumar and Gurbachan Kaur Bhatia (2014) measured the financial performance of two major automobile companies of Indian origin, Tata Motors and Maruti Suzuki after the policy of liberalization for a period of twenty one years from 1991-92 to 2012-13. The result of the study revealed that there was no much difference in the companies in short term solvency, liquidity and profitability. Further, the study revealed that the long-term solvency of the sample was different as that value of debt equity ratio and equity were significant. Vijayalakshmi and Srividya (2014) examined the profitability position of the pharmaceutical industry in India from 2009-10 to 2013-14. The study suggested that in order to improve profitability, the companies must

concentrate on the cost of production, investment in fixed assets and sales turnover. Sumathi and Jothi (2016) analyzed the profitability and short-term liquidity position of the Ultratech Cement Limited and OCL India Limited for ten years from 2005-06 to 2014-15. The analysis revealed that the profitability ratios of both the companies were satisfactory and short-term liquidity position was not satisfactory. Finally, it was concluded that both the companies must improve their short-term solvency position.

**5. Research Methodology:**

**Data Collection:** The study is based on secondary data. The required data were collected from the capita line plus and prowest IQ database. The data were also collected from journal, periodicals, research publications and dailies.

**Period of the Study:** The period of this study covered ten years from 2007 to 2016.

**Sample Design:** The study is based on the convenience sampling method.

**6. Data Analysis:**

In order to compare the performance of Mahindra and Mahindra Limited and Maruti Suzuki India Limited various accounting ratios and statistical tools like Mean, Standard Deviation, Co-efficient of variation, Compound Annual Growth Rate and t - test are used. To make the financial analysis more effective the following ratios have been used are shown in the Table 1.

Table 1: Ratio Classification

Type	S.No	Ratio	Formula
Liquidity Ratio	1	Current Ratio	Current Assets/Current Liabilities
	2	Acid Test Ratio	Quick Assets/ Current Liabilities
Leverage Ratio	1	Debt-Equity Ratio	Long Term Debt / Shareholders Fund
	2	Proprietary Ratio	Shareholders' Funds / Total Assets
Profitability Ratio	1	Gross Profit Ratio	Gross Profit / Net Sales x100
	2	Net Profit Ratio	Net Profit / Net Sales x100
Turnover Ratio	1	Fixed Assets Turnover Ratio	Net Sales / Net Fixed Assets
	2	Inventory Turnover Ratio	Net Sales / Inventory

The Table 2 shows the analysis of financial ratios of Mahindra and Mahindra Limited and Maruti Suzuki India Limited.

Table 2: Ratio Analysis

Year	C.R.		Q.R.		D.E.R.		P.R.	
	MML	MSIL	MML	MSIL	MML	MSIL	MML	MSIL
2007	1.29	1.52	3.39	4.03	0.39	0.06	0.68	0.92
2008	1.19	1.13	2.70	2.10	0.54	0.10	0.63	0.90
2009	1.05	1.22	2.59	3.33	0.6s9	0.09	0.56	0.93
2010	1.08	1.19	3.20	2.16	0.53	0.07	0.73	0.94
2011	0.92	1.13	1.69	2.84	0.29	0.04	0.77	0.96
2012	0.82	1.08	2.05	2.27	0.27	0.05	0.74	0.91
2013	0.88	0.86	2.03	1.84	0.26	0.08	0.77	0.91
2014	0.94	0.69	2.40	1.48	0.24	0.08	0.77	0.90
2015	0.92	0.59	2.27	1.09	0.22	0.05	0.80	0.96
2016	0.81	0.55	2.00	1.02	0.16	0.01	0.84	0.98
Mean	0.99	1.00	2.43	2.22	0.36	0.06	0.73	0.93
SD	0.16	0.31	0.55	0.96	0.17	0.03	0.08	0.03
CV (%)	16.06	31.42	22.52	43.39	48.08	42.36	11.36	2.95
CAGR (%)	-5.04	-10.68	-5.73	-14.15	-9.43	-18.05	0.02	0.01

Year	G.P.R.		N.P.R.		F.A.T.R.		I.T.R.	
	MML	MSIL	MML	MSIL	MML	MSIL	MML	MSIL
2007	16.53	17.36	10.85	10.63	3.67	3.10	12.73	21.74
2008	14.58	17.17	9.78	9.67	3.75	3.13	13.11	24.18
2009	10.51	11.65	6.71	5.96	3.40	2.90	13.53	23.89
2010	17.52	15.18	11.37	8.58	3.97	3.34	17.92	30.27
2011	16.77	11.26	11.35	6.25	4.55	3.69	17.73	31.15
2012	13.13	9.23	9.04	4.59	4.97	2.98	16.95	24.60
2013	12.75	11.13	8.29	5.49	5.15	2.84	18.17	26.99
2014	12.92	13.16	9.28	6.38	4.36	2.30	16.51	27.53
2015	13.38	14.69	8.64	7.43	3.61	2.24	15.51	25.11
2016	13.06	16.21	12.55	7.92	3.35	2.34	17.02	22.43

Mean	14.12	13.70	9.79	7.29	4.08	2.89	15.92	25.79
SD	2.20	2.83	1.75	1.92	0.64	0.47	2.08	3.15
CV (%)	15.59	20.63	17.88	26.31	15.81	16.45	13.06	12.20
CAGR (%)	-2.59	-0.76	1.63	-3.22	-0.01	-0.03	0.03	0.00

Source: Computed from secondary data

(C.R. – Current Ratio, Q.R.- Quick Ratio, D.E.R.-Debit-Equity Ratio, P.R- Proprietary Ratio, G.P.R.-Gross Profit Ratio, N.P.R.- Net Profit Ratio, F.A.T.R-Fixed Assets Turnover Ratio, I.T.R.- Inventory Turnover Ratio, MML- Mahindra and Mahindra Limited, MSIL- Maruti Suzuki India Limited)

**Current Ratio:**

Current Ratio of both the companies failed to maintain the minimum standards during the study period. The Standard Deviation and Co-efficient of Variation revealed that Mahindra & Mahindra Ltd. has maintained its current ratio consistently than Maruti Suzuki Ltd. Further, it is also found that the Compound Annual Growth Rate of both the companies registered a negative growth during the study period.

**Quick Ratio:**

Quick Ratio of both the companies has recorded more than the standard norms. Hence, both the companies have satisfactory liquidity position. The standard deviation and Co-efficient of Variation reveals that Mahindra & Mahindra Ltd (22.52 percent) has maintained its Quick ratio consistently than Maruti Suzuki Ltd (43.39 percent). The Compound Annual Growth rate of both the companies have registered a negative growth during the study period.

**Debt-Equity Ratio:**

Debt-Equity Ratio of both the companies are not maintain standard norms. The Mahindra & Mahindra Ltd. has the highest average of 0.36 times in Debt-Equity ratio. It indicates that Maruti Suzuki Ltd. is the safer financial position than Mahindra & Mahindra Ltd. The co-efficient of variation reveals that there is a greater variation in Mahindra & Mahindra Ltd. Both the companies have registered a negative Compound Annual Growth Rate.

**Proprietary Ratio:**

Proprietary Ratio of Maruti Suzuki Ltd. has the highest mean value and throughout the study period the ratio between the range of 0.90 to 0.98 times. It reveals the Maruti Suzuki Ltd. has the proprietary ratio without affecting the interest of creditors of the company. The compound annual growth rates of both the companies are positive growth.

**Gross Profit Ratio:**

As compared to these two companies Mahindra and Mahindra Ltd. has the highest average gross profit ratio and with the lowest Standard Deviation of 2.20 per cent. The high co-efficient of variation in respect of Maruti Suzuki Ltd. (20.63 per cent) reveals its inconsistent performance. Both the companies have registered negative Compound Annual Growth Rate.

**Net Profit Ratio:**

Net profit Ratio of Mahindra & Mahindra Ltd. has high average (9.79 per cent). The Standard Deviation of Maruti Suzuki Ltd. has more variation (1.92 per cent) than Mahindra & Mahindra Ltd. (1.75 per cent). The low co-efficient of variation of 17.88 per cent in Mahindra & Mahindra Ltd. reveals that greater consistency of its net profit ratio. The Compound Annual Growth Rate of Mahindra & Mahindra Ltd. has positive growth of 1.63 per cent and Maruti Suzuki Ltd. has negative growth of -3.22 per cent in net profit ratio.

**Fixed Assets Turnover Ratio:**

Fixed Assets Turnover Ratio indicates the efficient utilization of fixed assets. Mahindra and Mahindra Ltd. has high average during the study period. As compared to this, two companies Mahindra and Mahindra Ltd. effectively utilize its fixed assets. Both the companies have negative growth during the study period.

**Inventory Turnover Ratio:**

The inventory turnover ratio indicates efficient management of inventory. Maruti Suzuki India Ltd. has a higher ratio than Mahindra and Mahindra Ltd. throughout the study period. The high Co-efficient of Variation in respect of Mahindra and Mahindra Ltd. reveals its inconsistent performance. The Mahindra and Mahindra Ltd. has registered positive growth.

**Testing of Significance:**

In order to test the significant difference in ratios among the sample companies, the following null hypothesis are framed and tested by using t-test at 1 % and 5 % level of significance. The results are shown in Table 3.

H<sub>0</sub>: There is no significant difference in the ratios (Current Ratio, Quick Ratio, Debt-Equity Ratio, Proprietary Ratio, Gross profit Ratio, Net Profit Ratio, Fixed Assets Turnover Ratio and Inventory Turnover Ratio) among the sample companies in the Indian Automobile Companies.

Table 3: Analysis of Mahindra and Mahindra Limited and Maruti Suzuki India Limited - “t” Test

Category	Variables	DF	‘t’ Value	‘p’ Value	Result
Liquidity	Current Ratio	13	-0.054	0.958	Not Significant

Ratio	Quick Ratio	14	0.61	0.55	Not Significant
Leverage Ratio	Debt-Equity Ratio	9	5.360	0.0005*	Significant
	Proprietary Ratio	11	-7.22	0.00*	Significant
Profitability Ratio	Gross Profit Ratio	17	0.36	0.72	Not Significant
	Net Profit Ratio	18	3.04	0.01*	Significant
Turnover Ratio	Fixed Assets Turnover Ratio	17	4.71	0.0002*	Significant
	Inventory Turnover Ratio	16	-8.28	0.00*	Significant

\*significant at 1 per cent level

The Table 3 indicates that the probability value is more than 0.05. Hence, the null hypothesis is accepted and it is concluded that there is no significant difference in Current Ratio, Quick Ratio and Gross profit Ratio among the select automobile companies. Further, it also reveals that the probability value is less than 0.01 in Debt – Equity Ratio, Proprietary Ratio, Net Profit Ratio, Fixed Assets Turnover Ratio and Inventory Turnover Ratio. Hence, the null hypothesis is rejected and it is concluded that there is a significant difference.

#### **7. Conclusion:**

The efficiency of a firm depends upon the performance of the company. Profit earning is considered essential for survival of the business. The profitability ratio proves the efficiency of the select companies. The financial positions of the selected automobile companies are satisfactory. But both the companies must improve their short term and long term solvency position.

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