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PROFITABILITY ANALYSIS OF SELECT AUTOMOBILE COMPANIES IN INDIA – WITH SPECIAL REFERENCE TO TATA MOTORS AND MAHINDRA AND MAHINDRA

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Abstract

Automobile industry is one of the key sectors in India and it is the progressing industry in the country. The industry helps the economy in many ways. The researcher selected Tata Motors Ltd. and Mahindra and Mahindra Ltd. for the analysis of profitability. The period of the study is ten years from 2005-06 to 2014-15. The study used secondary data (accounting data). The researcher used ratio analysis as financial tool and mean, standard deviation, co-efficient of variation, compounded annual growth rate (CAGR) and ANOVA as statistical tools. The researcher found that net profit of Tata Motors decreased during the study period, net profit of Mahindra and Mahindra Ltd. increased considerably. It was also evidenced that profitability in terms of net profit ratio, operating profit ratio, return on assets, return on investments and earnings per share of Mahindra and Mahindra Ltd. was better than Tata Motors Ltd. during the study period. The results of ANOVA indicated that significant differences were found in net profit ratio, return on assets and earnings per share among the sample companies and in case of operating profit ratio and return on investments, no significant differences were found among sample companies.

Key words: Profitability, net profit, operating profit, earnings per share.

Introduction

India is one of the fastest growing economies in the world. Various sectors contribute to the development of Indian economy. The contribution of service sector to gross domestic product (GDP) is higher than any other sector. Next to service sector manufacturing sector contributes more to GDP followed by agricultural sector. In the

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aspect of employment, manufacturing sector gives more employment to people. There are several industries in manufacturing sector, among them automobile industry has playing prominent role in the aspects of production, sales and employment. Automobile industry is the key driver of Indian economy. It plays a vital role in the economy and industrial development of India. It supports the development of some other industries by the procurement of raw material, those basic industries are steel, metal, plastic, petrochemicals, rubber, glass, and so on. These industries give more employment opportunity to people directly and indirectly. The success of an industry depends on industrial units consisted in such industry. Hence the study on the units (companies) is getting importance. The automobile industry is one of the fastest growing industries in India. It is also one of the largest in the world. This industry also helps to raise foreign currency by exporting its products. Earning profit is the primary reason for every business organization. Hence the researcher has analysed profitability analysis of selected automobile companies in India.

Literature Review

Shivam Mathur and Krati Agarwal (2016) in their study on financial performance of Tata and Mahindra and Mahindra, it was found that net sales of declined in case of Tata motors but sales increased for Maruti Suzuki. Profitability of Maruti Suzuki was better than Tata motors. Neeraj Kumar and Kuldip Kaur (2016) in their study analyised profitability of automobile industry based on their size and found that time-series analysis showed the positive relationship and cross-section analysis showed that there exists no relationship between firm size and profitability. Priyanka R Gowda and Manoj Kumara N V (2017) in their study found that the selected sample automobile companies had no significant relationship in terms of long term debt and dividend per share. It was also found that the proportionate change of debt of selected automobiles firm do not influence or impact the firm's decision. Dharmendra S. Mistry (2012) in his study evidenced that DE, ITR and SIZE were the most important determinants of the profitability which affected the profitability of the companies under the study positively. Only LIQ was found to have negative effect on the profitability. Ashok Kumar M and Preetha R (2016) undertook a study to analyse factors determining profitability of Indian automobile industry. The study proved that profitability of the Indian

Automobile Industry is highly dependent on Operating Ratio and it contributes 93.40 per cent to variation in Return on Sales.

Statement of the Problem

India is one of the fastest growing countries in the world. In the past two decades its growth is tremendous. The economic power of the people in India also is growing; more people started to buy four wheelers. So more companies entered into the automobile industry and existing automobile companies expanded their production level. Hence automobile industry is getting an important role in economy. Among them Tata Motors Limited and Mahindra and Mahindra Limited are the leading companies. Profit is the primary objective of any business organization. Analyzing profitability of a company will exhibit overall performance. Hence the researcher has analysed profitability of selected automobile companies in India.

Objectives

The study has been undertaken profitability analysis of selected automobile companies in India.

Methodology

The researcher analysed profitability of two automobile companies in India. For this purpose the researcher selected top two automobile companies namely, Tata Motors Ltd. and Mahindra and Mahindra Ltd. The period of the study is ten years from 2005-06 to 2014-15. The study used secondary data, they were collected from financial reports of the selected companies and they were extracted from annual reports of the companies. These annual reports were collected from official websites of the respective companies. The researcher used ratio analysis as financial tool, the researcher calculated net profit ratio (NP), operating profit ratio (OP), Return on Assets (ROA), Return on Investments (ROI) and Earnings per Share (EPS). He also used mean, standard deviation, co-efficient of variation, compounded annual growth rate (CAGR) and ANOVA as statistical tools.

Results and Interpretation

Profitability is the primary goal of all business firms. Without profitability the business will not survive in the long run. So measuring current and past profitability and projecting future profitability is very important. This section of the article presents the results and interpretation of the study. Table 1 presents net profit and its trend for the study period.

Table 1: Net Profit and its Trend

Year	Tata		MM	
	NP	Growth %	NP `.	Growth %
2005-06	1528.88		857.10	
2006-07	1913.46	25.15	1068.39	24.65
2007-08	2028.92	6.03	1103.37	3.27
2008-09	1001.26	-50.65	836.78	-24.16
2009-10	2240.08	123.73	2087.75	149.50
2010-11	1811.82	-19.12	2662.1	27.51
2011-12	1242.23	-31.44	2878.89	8.14
2012-13	301.81	-75.70	3352.82	16.46
2013-14	334.52	10.84	3758.35	12.10
2014-15	-4738.95	-1516.64	3321.11	-11.63
Mean	766.40		2192.67	
SD	2047.99		1147.25	
CV	267.22		52.32	
CAGR	NA		14.51	

Source: Computed from Secondary Data.

It was observed from table 1 that net profit of Tata Motors Ltd. met high fluctuation during the study period. Net profit of the company increased at very high rate during 2009-10 by 123.73 per cent, but it decreased drastically during 2014-15 and net loss was reported during the year at Rs.4738.95 crore. High rates of decrease in net profit were found during 2012-13, 2008-09 and 2011-12 by 75.70, 50.65 and 31.44 per cent respectively over the previous years. The calculated values of mean, SD and CV showed wide deviation in net profit from its mean value. Net profit of Mahindra and Mahindra Ltd. increased substantially during the study period. Net profit of the company increased at very high rate during 2009-10 and decrease in net profit was found during 2008-09 and 2014-15 by 24.16 and 11.63 per cent respectively. The calculated value of CAGR of net profit of the company was 14.51 per cent, it is considered high and therefore there was high growth in net profit of the company during the study period. Moderate level of deviation was found in net profit of Mahindra and Mahindra Ltd. from its mean value as per the results of SD and CV. Table 2 presents the profitability ratios of the selected companies

Table 2

Profitability Ratios of Selected Companies

Year	TATA					Mahindra & Mahindra				
	NP	OP	ROA	ROI	EPS	NP	OP	ROA	ROI	EPS
2005-06	6.37	6.11	14.46	26.48	39.94	10.73	6.30	25.44	17.30	36.72
2006-07	6.95	7.20	15.55	28.84	49.65	11.10	4.04	25.50	10.94	44.88
2007-08	7.06	6.36	12.36	23.32	52.63	10.21	2.41	23.33	5.99	46.15
2008-09	3.90	2.92	4.17	6.12	19.48	6.62	1.32	12.45	3.18	30.69
2009-10	6.29	4.19	10.06	9.96	39.26	11.57	7.50	29.20	17.28	36.89
2010-11	3.77	5.77	6.96	13.85	28.55	11.70	6.88	33.47	15.18	45.33
2011-12	2.29	3.47	3.94	9.61	3.91	9.04	8.09	26.51	21.16	48.88
2012-13	0.67	-0.89	0.54	-2.08	0.95	8.40	6.16	28.47	16.76	56.80
2013-14	0.98	-6.30	-3.28	-11.27	1.04	9.28	8.15	21.95	19.65	63.67
2014-15	-13.06	-13.80	-12.06	-33.91	-14.72	8.53	6.90	21.05	13.95	56.16
Mean	2.52	1.50	5.27	7.09	22.07	9.72	5.77	24.74	14.14	46.62
SD	5.97	6.74	8.60	19.08	23.40	1.63	2.38	5.66	5.82	10.23
CV	236.83	448.87	163.09	268.95	106.05	16.79	41.23	22.90	41.13	21.94

Source: Computed from Secondary Data.

Table 2 shows that net profit ratio of Tata Motors was gradually decreasing during the study period. Net profit ratio of the company ranged from -13.06 to 7.06 per cent. The results also show that net profit ratio of the company was too low during 2012-13 and 2013-14 and it was negative during 2014-15. Mean value of the ratio was 2.52, it is considered too low and therefore profitability of the company in terms of net profit ratio was poor. The results of SD and CV of net profit ratio of the company showed wide deviation in the ratio from its mean value. Operating profit ratio of Tata Motors was low during the study period. It was considerable for the first three years of the study period and it was not so during remaining years. Mean value of the ratio was 1.50 per cent, it is considered too low, it shows poor operating performance of the company. Wide deviation was found in the operating profit ratio from its mean value. Return on assets of Tata Motors was good during 2005-06 to 2007-08 and 2009-10, during the years it was more than 10 per cent. During other years it was low and especially during 2013-14 and 2014-15 it was negative. The ratio ranged from -12.06 to 15.55 per cent, mean value of the ratio was 5.27 per cent, therefore profitability of the company in terms of return on assets was not good. The calculated values of SD and CV showed wide deviation in the ratio. Return on investment of Tata Motors was fluctuating during the study period. The ratio ranged from -33.91 to 28.84 per cent. The ratio was found to be low during 2008-09, 2009-10, and from 2011-12 to 2014-15. Mean value of the ratio was 7.09 per cent. It is considered low and therefore the company's profitability in terms of return on investment was not good. The results of SD and CV reported wide deviation in the ratio from its mean value. Earnings per share of Tata Motors was found to be high during first six years of the study period and it was very low during last four years of the study period, its mean value was Rs.22.07 per share. The results show that earning per share of Tata Motors was good during first six years and poor during last four years. Wide deviation was found in the ratio as per the results of SD and CV.

Net profit ratio of Mahindra and Mahindra Ltd. was more than 10 per cent during five years and it was less than 10 per cent during other years. Mean value of the ratio was 9.72 per cent, it is at moderate level and therefore profitability of the company was at considerable level during the study period. Low level of deviation was found in the ratio from its mean value as shown by the results of SD and CV. Operating profit ratio of Mahindra and Mahindra was fluctuating during the study period. It was low during 2007-08 and 2008-09 and during other years it was at normal level. Mean value of the ratio was 5.77, it shows that net profit of the company boosted up by non-operating incomes and therefore operating performance of the company was not good. Moderate level of deviation was found in the ratio. Return on assets ratio of Mahindra and Mahindra was found to be high during the study period. The ratio ranged between 12.45 and 33.47 per cent, mean value of the ratio was 24.74 per cent. Therefore profitability of the company in terms of return on assets was good. The results of SD and CV showed low level of deviation in the ratio from its mean. Return on investment of Mahindra and Mahindra was found to be good during the study period. The ratio ranged from 3.18 to 21.16 per cent. Low ratio was found during 2007-08 and 2008-09 and during other years the ratio was more than 10 per cent. Mean value of the ratio was 14.14 per cent, hence financial performance in terms of return on investment of Mahindra and Mahindra was good. Moderate level of deviation was found in the ratio from its mean value as shown by the results of SD and CV. Earning per share of Mahindra and Mahindra was high during all the years of the study period. Mean value of the ratio was Rs.46.62 per share, it shows that shareholders of the company are getting high earnings per share. The results of SD and CV indicated low level of deviation in the ratio from its mean value. In order to know whether there were any differences in profitability ratios among sample companies, the following null hypothesis was framed and tested using ANOVA and the results are presented subsequently.

H_o: There are no significant differences in profitability ratios among sample companies.

Table 3: ANOVA for Net Profit Ratio

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	258.91	1	258.91	13.50	0.00	4.41
Within Groups	345.25	18	19.18			
Total	604.17	19				

Results of table 3 shows that the calculated value of F statistics was 13.50 for net profit ratio of sample companies, the result was statistically significant at 1 per cent level as shown by P-value, hence the null hypothesis was rejected and therefore there were significant differences in net profit ratio among sample companies.

Table 4: ANOVA for Operating Profit Ratio

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	91.25	1	91.25	3.57	0.08	4.41
Within Groups	460.44	18	25.58			
Total	551.69	19				

Results of table 4 indicates that the calculated value of F statistics was 3.57 for operating profit ratio of sample companies, the result was not statistically significant as shown by P-value, hence the null hypothesis was accepted and therefore there were no significant differences in operating profit ratio among sample companies.

Table 5: ANOVA for Return on Assets Ratio

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1894.82	1	1894.82	35.76	0.00	4.41
Within Groups	953.64	18	52.98			
Total	2848.46	19				

Table 5 reports that the calculated value of F statistics was 35.76 for Return on Assets ratio of sample companies, the result was statistically significant at 1 per cent level as shown by P-value, hence the null hypothesis was rejected and therefore significant differences were found in the ratio among sample companies.

Table 6: ANOVA for Return on Investments Ratio

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	248.30	1	248.30	1.25	0.28	4.41
Within Groups	3580.10	18	198.89			
Total	3828.40	19				

Results of table 6 shows that the calculated value of F statistics was 1.25 for Return on Investments ratio of sample companies, the result was not statistically significant as shown by P-value, hence the null hypothesis was accepted and therefore there were no significant differences in return on investments ratio among sample companies.

Table 7: ANOVA for Earnings per Share Ratio

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	3013.02	1	3013.02	9.24	0.01	4.41
Within Groups	5871.52	18	326.20			
Total	8884.54	19				

Table 7 indicates that the calculated value of F statistics was 9.24 for Earnings per Share ratio of sample companies, the result was statistically significant at 1 per cent level as shown by P-value, hence the null hypothesis was rejected and therefore significant differences were found in earnings per share among sample companies.

Conclusion

Automobile industry is one of the key sectors in India and it is the progressing industry in the country. The industry provides more employment opportunities both directly and indirectly to people and it helps the economy in many ways. Tata Motors Ltd. and Mahindra and Mahindra Ltd. are the leading automobile companies in the country. The researcher has analysed profitability of the companies. The researcher found that net profit of Tata Motors decreased during the study period, net profit of Mahindra and Mahindra Ltd. increased considerably. It was also evidenced that profitability in terms of net profit ratio, operating profit ratio, return on assets, return on investments and earnings per share of Mahindra and Mahindra Ltd. was better than Tata Motors Ltd. during the study period. The results of ANOVA indicated that significant differences were found in net profit ratio, return on assets and earnings per share among the sample companies and in case of operating profit ratio and return on investments, no significant differences were found among sample companies.

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