A study of key financial performance indicators of automobile companies in India

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Abstract – In India, automobile industry is one of the major contributing sectors to economic growth. The emergence of automobile in India rests back in early 1940s where Hindustan Motors dominated the market with its most renowned car 'Ambassador' until mid of 1980s followed by Premier Automobiles, Mahindra and Mahindra and Tata Motors. After independence, privatization paved way for sharp growth in this industry. India is emerging as strong economy across the world despite worldwide crises. Present study is focused on financial performance analysis of automobile manufacturing companies, selected using simple random sampling technique. Accounting tool ratio analysis and ANOVA test are used for analysis and interpretation.

(***Keywords:*** Automobile, Electric Vehicle, Financial Performance, Trend)

[I] Introduction:

Wheel has created miracles since its inception. Its emergence led advancement in major areas like battle, transportation, agriculture and some other areas like craft. Its innovation has paved way for automobile industry as it is one of the key role playing sectors in the development of any economy. Indian automobile industry stands on 5th rank across the world in manufacturing cars and commercial vehicles. This industry has attracted foreign direct investment of US$30.51 billion by mid of the year 2021 and is expected to reach US$300 billion by 2026. Indian automobile market is dominated by two wheelers and passenger cars. India is also a prominent auto exporter as this industry has exported 1419430 units by mid 2021 and has strong export growth expectations for the near future. In addition, several initiatives by the Government of India such as the Automotive Mission Plan 2026, scrappage policy and production-linked incentive scheme in the Indian market are expected to make India one of the global leaders in the two-wheeler and four-wheeler market. Many corporations have started shifting slowly but firmly towards producing electric vehicles from manufacturing conventional fuel operated vehicles. The government aims only electric vehicles to be sold in the country. And for promoting this aim it has announced additional income tax deduction of ₹ 1.5 lakh on interest paid for electric vehicles purchased on loan. According to NITI Aayog and the Rocky Mountain Institute (RMI), India's EV finance industry is likely to reach US$ 50 billion by 2030. The electric vehicle industry is likely to create 5 crore jobs by 2030.

[II] Type of Research

Present research is completely analytical and descriptive in nature.

[III] Review of Literature

Ravichandran, M., Subramaniyam (2018), evaluated viability, balance and profitability of Force motors limited. It was found that enterprise had acquired adequate cash to meet its money owed and liabilities. Company can similarly enhance economic overall performance through lowering the administrative, promoting and running expenses.

Khedkar (2015), studied the relationship between financial leverage and return on investment, operating leverage and return on investment and combined leverage and return on investment for Dr. Reddy's Laboratories taking data for the financial year 2013-14 and observed that degree of operating leverage is significant & negatively correlated with return on investments, the degree of financial leverage and combined leverage is positive but not significantly associated with return on investments. It was suggested, Dr. Reddy"s Laboratories should revise its capital structure which should include the optimum blend of equity and borrowed funds so that it develops positive impact on return on investment.

Kumar Mohan M. S., Vasu. V. and Narayana T. (2016), studied the financial health of the company using different ratios, mean, standard deviation and Altman's Z score approach. In conclusion, a positive correlation between liquidity and profitability ratios was found except return on total assets. Z score value indicated good health of the company.

Ganvit R. C. and Dave K. S. (2018), conducted liquidity analysis of automobile companies. It was analyzed that year base current ratio as well as year base and unit base quick ratio shown equality norms for the selected research units of automobile industry during research period while unit base current ratio shown unequal norms during research period.

[IV]Objectives of Study

To examine the financial performance of selected automobile companies during the study period. To make suggestions based on analytical results for improvement, if needed.

[V] Sources of Data

Present study is based on secondary data collected from journals, annual reports published by companies' as well as other corporate field's websites. The data covers a period of 10 years from 2012-13 to 2021-22

[VI]Sampling

Automobile manufacturing companies in India form the population and for the purpose of present study five public sector automobile manufacturing companies engaged in making Light Motor Vehicle (LMV) and Heavy Motor Vehicle (HMV), namely

Mahindra & Mahindra Limited, Tata Motors Limited, Maruti Suzuki India Limited, Force Motors Limited and Eicher Motors Limited have been selected conveniently using non-probability sampling technique.

[VII] Tools and Techniques

One of the most renowned accounting tool ratio analysis and ANOVA as statistical tool are used for analysis and hypotheses testing.

[VIII] Analysis and interpretation

Net profit margin ratio

This profitability ratio expresses the percentage of profit from operational activities after deducting operational expenses, taxes, interest paid and preferred stock dividends from income. Investors can assess efficiency of company's management as this ratio indicates overall financial health. Present and potential shareholders are always keen on this ratio because it shows how well firm is at converting its revenue into divisible profit.

Table 1 Net profit margin ratio

(in %)

Year	Mahindra & Mahindra	Tata Motors	Maruti Suzuki	Force Motors	Eicher Motors
2012-13	8.29	0.67	6.86	0.72	16.36
2013-14	9.27	0.97	8.37	3.84	18.43
2014-15	8.52	-13.05	9.74	4.28	20
2015-16	7.83	-0.14	12.93	5.86	21.16
2016-17	8.27	-5.48	14.64	5.86	22.16
2017-18	7.43	-1.75	9.68	4.29	19.12
2018-19	4.44	2.91	8.71	4.03	20.97
2019-20	-1.78	-16.59	7.47	1.88	20.97
2020-21	0.31	-7.93	6.01	-5.62	15.42
2021-22	5.98	-2.94	4.26	-2.3	15.66
Average	**5.856**	**-4.333**	**8.867**	**2.284**	**19.025**

Table 1revealed that Eicher Motors reported highest average net profit margin ratio 19.025 percent during study period followed by Maruti Suzuki with 8.867 percent, Mahindra & Mahindra with 5.856, Force Motors with 2.284 and Tata Motors with -4.333 respectively.

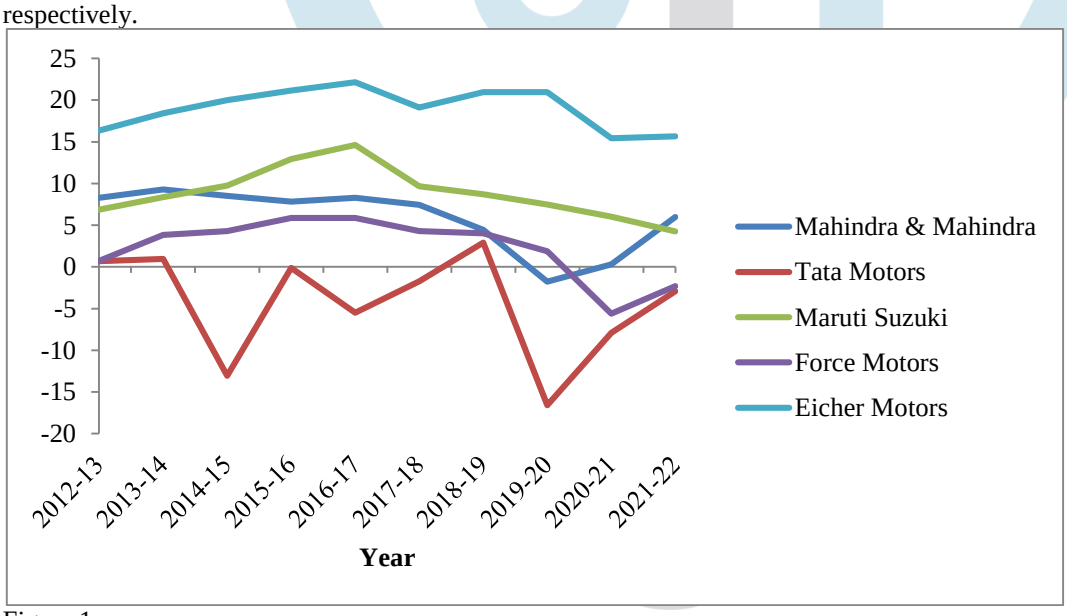

Figure 1

Figure 1 reported fluctuating trend during study period. It is evident that Eicher Motors had remarkably highest net profit margin ratio whereas rest of the selected units were too far from it. Tata Motors reported almost negative and drastic fluctuating trend with respect to this ratio during the study period.

Table 2 Net profit margin ratio One way ANOVA

H_0: Net profit margin ratio does not differ significantly during the study period

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F_C	F_T
Between Companies	2978.933	4	744.733	43.695	2.579
Within Companies	766.979	45	17.044	$F_C > F_T$	
Total	3745.912	49		H_0 Rejected	

Table 2 disclosed ANOVA results performed for testing aforementioned null hypothesis. Calculated value being greater than table value rejected the null hypothesis and confirmed that there were alternative causes behind significant difference in the net profit margin ratio during the study period.

Earnings per share

Another profitability measurement ratio of company is Earnings per share (EPS). It indicates whether investing in a company would increase their earning. It is calculated by dividing quarterly or annual income (after dividend) by the number of outstanding stock shares. High EPS is perceived, to be profitable, worth investing which results in high dividend payout ratio in the company, by the investors.

Table 3 Earnings per Share

Year	Mahindra & Mahindra	Tata Motors	Maruti Suzuki	Force Motors	Eicher Motors
2012-13	56.85	0.93	79.19	10.84	103.15
2013-14	63.67	1.03	92.13	58.97	206.38
2014-15	56.23	-14.72	122.85	76.93	342.25
2015-16	53.05	-0.18	177.58	136.17	482.45
2016-17	30.69	-7.15	243.32	136.55	573.75
2017-18	36.64	-3.05	255.62	111.53	629.07
2018-19	40.29	5.94	248.3	111.7	753.37
2019-20	11.16	-21.06	187.06	44.16	697.5
2020-21	2.25	-6.59	140.02	-84.9	48.68
2021-22	41.28	-3.63	124.68	-56.62	58.02
Average	**39.211**	**-4.848**	**167.075**	**54.533**	**389.462**

Table 3 is the evident that average earning per share of Eicher Motors is highest of 389.462 followed by 167.075, 54.533, 39.211 and -4.848 by Maruti Suzuki, Force Motors, Mahindra & Mahindra and Tata Motors respectively during the study period. It is revealed that Eicher Motors has performed quite well by properly utilizing owner's fund.

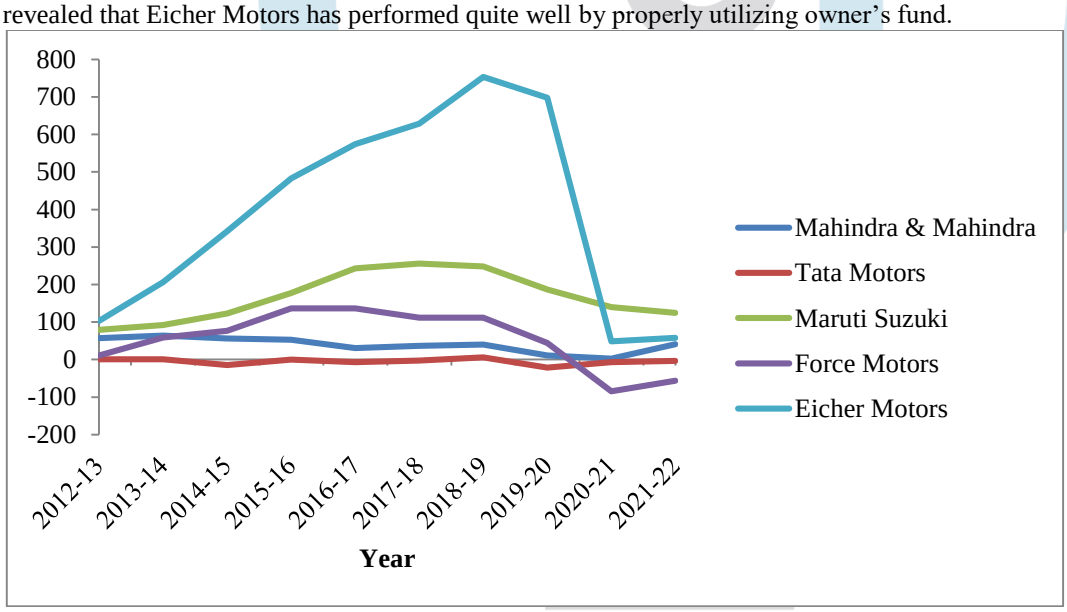

Figure 2

It is evident from the fig. 2 that Eicher Motors had increasing trend till 2018-19 then it fell drastically until 2020-21. Maruti Suzuki and Force Motors shown fluctuating trend whereas Mahindra & Mahindra and Tata Motors shown little fluctuation with regard to earnings per share during the study period. Negative trend was seen in Tata Motors except three years 2012-13, 2013-14 and 2018-19 respectively.

Table 4 Earnings per Share One way ANOVA

H_0: Earnings per Share does not differ significantly during the study period

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F_C	F_T
Between Companies	1008128.073	4	252032.018	14.766	2.579
Within Companies	768082.727	45	17068.505	$F_C > F_T$	
Total	1776210.800	49		H_0 Rejected	

Table 4 disclosed ANOVA results performed for testing aforementioned null hypothesis. Calculated value being greater than table value rejected the null hypothesis and confirmed that there were alternative causes behind significant difference in earnings per share during the study period.

[IX]Findings and Conclusion

From the profitability point of view, except Tata Motors, other companies were in good financial condition. From investors' points of view, again Tata Motors was in worst situation, other companies had high payout ratio. Performance was down in 2020-21 in all the selected units because this phase was inflicted by COVID-19 which left only option of closing down the business operations which resulted in global slowdown. Due to this, major economies were dismantled. This study covered two important parameters i.e., net profit margin ratio and earnings per share for financial analysis. Investors generally seek these two items to be in good position for making investment related decision in future.

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