

Who outperforms automobile industry in India? Comparative study on financial performance between tata motors versus M & M LTD

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Abstract. Background: The immense growth of automobile industry in India made the people to satisfy their desire in driving the most luxurious vehicle. Every other day, we have been getting news about some new launches, some low-cost cars which are all custom-made in a sophistication such that even the common man can afford the vehicle. The Compound Annual Growth Rate of the Indian automotive industry's sales between financial year 2009 and 2020 comes around 8%. **Purpose:** The purpose of this study is to know about the financial performance of leading automobile industry by comparing their financial statements. **Objectives:** The financial position of TATA motors and M & M Ltd were ascertained with the help of ratios as a parameter. Secondly to analyse the financial performance of both the companies by comparing its financial statements. **Methodology:** In this research work two automobile companies in India were selected for analysis. The selected automobile companies last five years i.e., from 2018 to 2022 financial position were analysed. This research is based on the secondary data. Different ratios were used to analyse the financial position of TATA motors and M & M Ltd. **Findings:** By analysing the financial position of the two companies it is clear that the net sales of the M & M Ltd is higher than the Tata Motors. It shows that even though the Tata Motors is performing well in its sales it has to concentrate to reduce its expenses to increase the profit. Likewise in the aspects of earnings per share, return on capital employed ratio, return on net worth ratio, gross profit ratio and net profit ratio the Tata Motors is lesser than the M & M Ltd. After analysing the aspects in this research, it says that M & M Ltd is better than Tata Motors from the year 2018 to 2022. **Keywords:** Financial position, profitability, automobile industry, Financial Performance, Profitability.

1 Introduction

The financial statement analysis will help to make better financial decisions by the way of reviewing and analysing a company's financial statement. Financial analysis assists to know about the strengths and weakness of the organisation by stating the association between the balance sheet, profit and loss account and other financial statements. In the

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growing economy the automotive industry will also be the important key driver for its growth. It plays a significant part in the overall economic growth of the developing country like India. In India, automobile industries are developing largely and showing its remarkable growth year by year. The overall industrial development of the country is also because of the increasing contribution of automobile industries. The automobile industry in India is a substantial driver of macroeconomic growth and technological development. The Automobile industry can be categorized into subsectors such as passenger vehicles, commercial vehicles, three-wheelers and two-wheelers. Two-wheelers occupy the dominant position, constituting about 80% market share and overall passenger vehicles comprise 13%. In the world automobile market India ranks first in terms of unit production of 2 wheelers, 3 wheelers and Tractors. In the production of passenger vehicle and commercial vehicles it plays fifth place.

Tata Motors is a \$37 billion organisation which is a leading global automobile manufacturing company. Its manufactures vehicles such as wide range of cars, defence vehicles, trucks, buses and sports utility vehicles. Mahindra & Mahindra ltd also having various range of automobile vehicles starting from two wheelers, four wheelers, tractors, trucks and buses. Analysing the financial position of both Tata motors and M & M ltd will help to understand the growth and current position of the industry in the automobile industry.

2 Objectives

The main objective of the research work is:

1. The financial position of TATA motors and M & M Ltd were ascertained with the help of ratios as a parameter.
2. To analyse the financial performance of both the companies by comparing its financial statements.
3. To comprehend the financial analysis concept.

3 Research Methodology

The annual reports of TATA Motors and M & M Ltd were used in this study with the help of NSE, BSE, moneycontrol.com, books, journals and magazines. The sample size of this study is two industries such as TATA motors and M & M Ltd. For the purpose of analysis, the financial performance the period taken is 2018 to 2022. The tools used to analyse the data is liquidity, profitability, efficiency and debt.

4 Review of Literature

Chaudhury (2020) focused on various angles of the effect of the pandemic on Indian Automobile Industry ranging from impact of change in emission norms by Government to consumer sentiments and perceptions about the recovery of this automobile industry and lastly found out some positive news for auto industry in this pandemic. From the study the researcher found that about 75% customers from India believes that Indian economy will recover in the coming 6 months post lockdown. The paper also highlighted the fact that health concerns arising in the time of pandemic are forcing the age group between (25-35) years to purchase personal cars for greater protection. Chotaliya (2020) published research paper titled "The Empirical Study of Financial Performance of Automobile Industry in India", studied Indian Commercial Vehicle sector by studying financial performance of 5 commercial vehicle manufacturers, Ashok Leyland Ltd., Tata Motors Ltd., Swaraj Mazda

Ltd., Force Motors Ltd. and Mahindra & Mahindra Ltd. She studied Current Ratio, Quick Ratio, Investment Turnover Ratio, Fixed Assets Turnover Ratio, Total Asset Turnover Ratio & Asset Turnover Ratio. Arithmetic Mean, Standard Deviation, Co-Efficient of Variation & ANOVA test was performed on mentioned ratios to study variance of values.

The findings of this study showed significant difference in all the ratios mentioned above of all the companies. Moradiet. al. (2020) found through the exploratory research that the Covid pandemic largely altered the perception of the consumers towards their own safety and hygiene that will positively increase the personal car demand and the rate of purchases will increase in the future. Lastly the researcher recommended the greater use of electronic means of transportation to maintain the sustainability levels of the environment. Naziret. al. (2019) studied the latest global automotive industry's competitive strategies that made the industry as one of the most competitive one. With 54 most relevant articles and data from 2017 and 2018 total 133 competitive strategies has been identified and analysed. The main objective of the study is to make the automotive industry of the developing countries to improve the strategies suitable for the current business trends. Miglani (2019) dealt with the India's national policy regarding the factors of upgradation, digitization and automation in the automobile industry. With the detailed structural analysis and the growth patterns of the automobile sector the governmental reforms since 1950 have been analysed from the areas of demand, supply, firm strategies and others which ultimately led to upgradations and innovations. The study recommended for the large investments for the development of indigenous technologies that are specially eco-friendly and sustainable so that India could experience a sustainable development as a whole Bhagyalakshmi and Saraswathi (2019) in research paper titled 'A Study on Financial Performance Evaluation Using Dupont Analysis in Select Automobile Companies' studied financial perform of 10 selected Indian automobile companies using DuPont through measuring Return on Equity (RoE), Return on Assets (RoA) and Return on Capital Employed (RoCE). The period of study was 5 years from 2013 to 2017. This paper also studied impact of Return on Assets (RoA) and Equity Multiplier on Return on Equity (RoE) and impact of net profit margin & total assets turnover ratio on Return on Assets (RoA). From the study, it was found that there is strong relationship within Net Profit Margin, RoA, RoE and RoCE. Another observation was that higher RoE of the companies was due to higher asset turnover ratio, which indicated higher operating efficiency with low debt. Arya (2019) analysed with some suggestions given via adoption of the innovative techniques that will surely make the automobile sector the largest one in the future. Research and development are the way out for the industry to be sustainable globally specially with their low-cost skilled labours and low-cost steel productions. Kanagavalli and Saroja Devi (2018) studied financial performance of selected automobile companies. Researchers performed ratio analysis of top 3 Indian two-wheeler companies named Hero MotoCorp Ltd., Bajaj Auto Ltd. and TVS Motors Ltd. for the period of 5 years from FY 2013-2018. Researchers studied the profile and growth of these companies. Researchers also analysed liquidity and solvency performance. Researchers studied Liquidity performance by studying Current Ratio & Quick Ratio and Solvency performance by analysing Interest Coverage Ratio, Proprietary Ratio, Sales to Total Assets Ratio etc. Researchers also performed ANOVA test to study variance of given ratios. The study found that Efficiency or Turnover Ratios of Hero MotoCorp is ranked higher among other automobile companies. The profitability ratios of Hero MotoCorp are also higher than other automobile companies. Neha Mittal (2018) studies the determination of capital structure choice of the selected Indian industries. The main objective is to investigate whether and to what extent the main structure theories can explain the capital structure choice of Indian firms. It has applied multiple regression models on the selected industries by taking data for the period 2009-2017. It examines the relevance of capital structure in selected Indian industries based on a regression analysis

and data study. It concludes that the main variables determining capital structure of industries in India are agency cost, asset's structure, non-debt tax shield and size. The coefficients of these variables are significant at one per cent and five per cent levels. Sheela Christina (2011) carried out the study on Financial Performance of Wheels India Limited-Chennai. The study deals with Analytical type of research design with the help of secondary data collection method. For this purpose, the researcher took past five years' data and also checked out for the validity and reliability before conducting the study. The researcher used the following financial tool namely ratio analysis, comparative balance sheet and DuPont analysis and also statistical tools such as trend analysis and correlation. Profitability ratios indicate there is a decrease in the profit level, utilization of fixed assets and working capital in the last financial year. Thus, the company can take necessary steps to improve sales and profit. Finally, the study reveals that the financial performance is satisfactory.

5 Analysis and interpretation of data

5.1 Ratio Analysis

The study of the line items existing in the financial statements of the business is referred as ratio analysis. Ratio analysis helps to know about the profitability, liquidity, solvency and efficiency of the company or the business. It is primarily executed by external analysts as they use financial statements as a primary source of information for analysis.

5.2 Analysis of Data with the help of following Ratio

- Net Sales
- Gross Profit
- Net Profit
- Earnings per share
- Return on Capital Employed Ratio
- Return on Net worth Ratio
- Gross Profit Ratio
- Net Profit Ratio
- Debt To Equity Ratio

Table 1. NET SALES (IN Cr).

Companies/Year	2018	2019	2020	2021	2022
TATA Motors	58,831.41	68,764.88	43,485.76	46,559.39	46,880.97
M & M Ltd	48,685.55	53,614.00	45,487.78	45,040.98	57,445.97

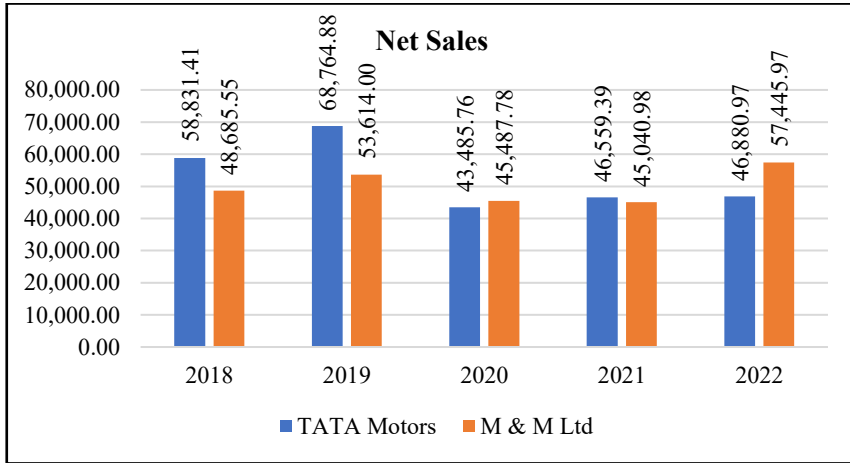


Fig. 1. NET SALES (IN Cr).

Interpretation: The graph shows that the sales of TATA Motors during 2018 is Rs.58,831.41, 2019 was Rs. 68,764.88, 2020 is 43,485.76, 2021 is Rs. 46,559.39 and in the year 2022 Rs.46,880.97. Whereas the sales of M & M ltd in 2018 was Rs. 48,685.55, in 2019 was Rs. 53,614.00, in 2020 was Rs.45,487.78, in 2021 it is Rs.45,040.98 and in the year 2022 the sales were Rs.57,445.97. Sales of Tata Motors was continuously decreasing whereas the sales on M & M ltd was reduced in two subsequent years but it was increased next year and thus comparing with TATA motors the sales is higher for M & M Ltd.

Table 2. GROSS PROFIT (IN Cr).

Companies/Year	2018	2019	2020	2021	2022
TATA Motors	19.74	2,602.00	-4,616.42	-1,967.17	-1,723.46
M & M Ltd	5,668.76	6,354.74	5,130.01	5,123.55	6,444.13

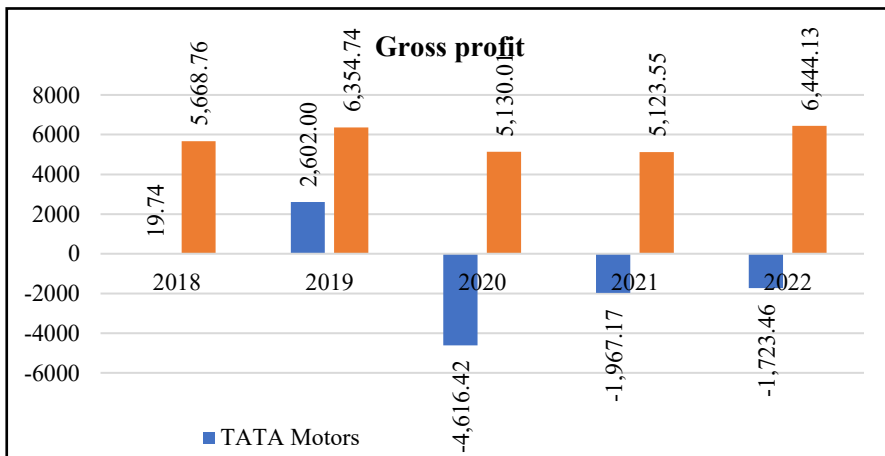


Fig. 2. GROSS PROFIT (IN Cr).

Interpretation: The graph shows the gross profit of Tata motors in the year 2018 was Rs.19.74, 2019 was Rs. 2,602.00, 2020 is -4,616.42, 2021 is Rs. -1,967.17 and in the year 2022 Rs.-1,723.46. Whereas the gross profit of M & M ltd in the year 2018 was Rs. 5,668.76, in 2019 was Rs.6,354.74, in 2020 was Rs.5,130.01, in 2021 it is Rs.5,123.55 and in the year 2022 the gross profit were Rs.6,444.13. The gross profit of TATA Motors was

uninterruptedly decreasing and this shows gross loss for last 3 consecutive year. Whereas the gross profit of M & M ltd was reduced for two years but increased in the following year, thus comparing with TATA motors, the M & M Ltd having good financial position.

Table 3. NET PROFIT (IN Cr).

Companies/Year	2018	2019	2020	2021	2022
TATA Motors	-1,034.85	2,020.60	-7,289.63	-2,395.44	-1,390.86
M & M Ltd	4,356.01	4,796.04	1,330.55	268.66	4,935.22

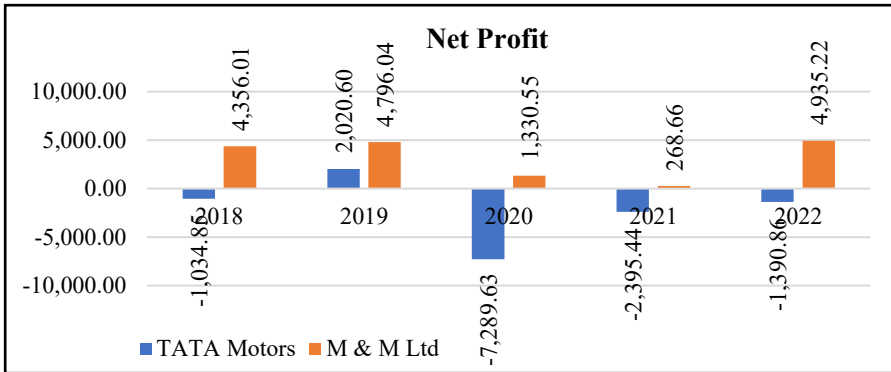


Fig. 3. NET PROFIT (IN Cr).

Interpretation: The graph shows the Net profit of Tata motors in the year 2018 was Rs.-1,034.85, 2019 was Rs. 2,020.60,2020 is -7,289.63, 2021 is Rs. -2,395.44and in the year 2022 Rs.-1,390.86. Whereas the Net profit of M & M ltd in the year 2018 wasRs. 4,356.01, in 2019 was Rs. 4,796.04, in 2020 was Rs.1,330.55, in 2021 it is Rs.268.66and in the year 2022 the net profit was Rs.4,935.22. The net profit of Tata Motors was continuously showing the negative figure except in the year 2019. Whereas the net profit of M & M ltd was reduced in the year 2020 and 2021 but increased in the next year, thus comparing with TATA motors, the M & M Ltd generating and maintaining net profit in the last five years.

Table 4. Earnings per shareratio.

Companies/Year	2018	2019	2020	2021	2022
TATA Motors	-3.05	5.95	-20.26	-6.26	-3.63
M & M Ltd	35.04	38.58	10.70	2.16	39.70

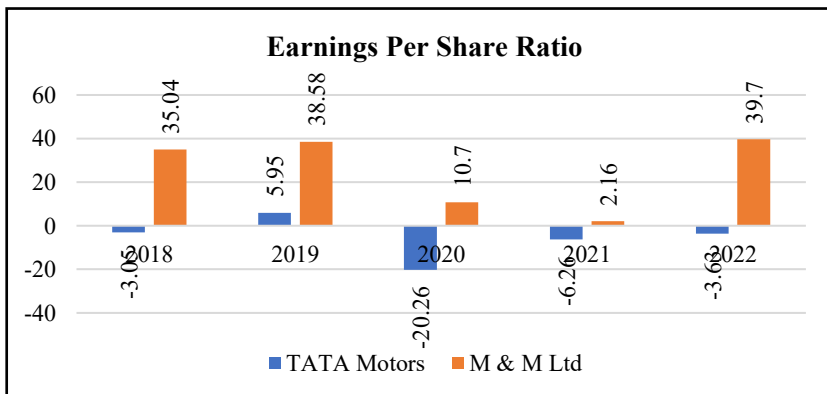


Fig. 4. Earnings per shareratio.

Interpretation: In the above graph shows the Earnings per share of Tata motors in the year 2018 was -3.05, 2019 was 5.95, 2020 is -20.26, 2021 is -6.26 and in the year 2022 -3.63. Whereas the Earnings per share of M & M Ltd in the year 2018 was 35.04, in 2019 was 38.58, in 2020 was 10.70, in 2021 it is 2.16 and in the year 2022 the earnings per share was 39.70. The earnings per share of Tata Motors was continuously showing the negative figure except in the year 2019. Whereas the earnings per share of M & M Ltd was reduced in the year 2020 and 2021 but increased in the next year, thus comparing with TATA motors, the M & M Ltd has earning per share in the increasing value for the last five years.

Table 5. Return on capital employed ratio.

Companies/Year	2018	2019	2020	2021	2022
TATA Motors	4.84	11.07	-6.72	0.35	0.92
M & M Ltd	17.43	17.62	14.01	13.20	14.66

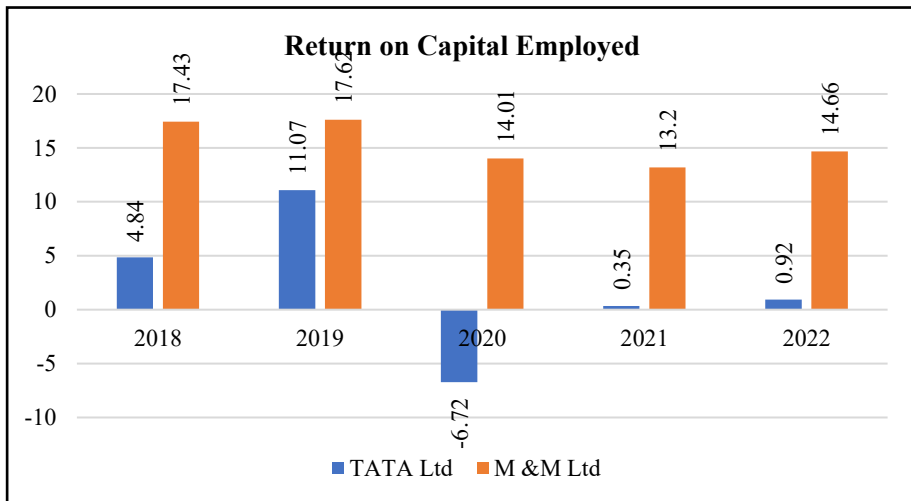


Fig. 5. Return on capital employed ratio.

Interpretation: In the above graph shows the return on capital employed ratio of Tata motors in the year 2018 was 4.84, 2019 was 11.07, 2020 is -6.72, 2021 is 0.35 and in the year 2022 is 0.92. Whereas the return on capital employed ratio of M & M Ltd in the year 2018 was 17.43, in 2019 was 17.62, in 2020 was 14.01, in 2021 it is 13.20 and in the year 2022 the return on capital employed ratio was 14.66. The return on capital employed ratio of Tata Motors showing the negative figure in the year 2020 even though the previous years have good increase in the return on Capital. But in the 2021 and 2022 the ROC increased. Whereas the M & M Ltd was gradually increasing in the return on capital for the five years. Thus, comparing with TATA motors, the M & M Ltd has return on capital employed in the increasing value for the last five years.

Table 6. Return on net worth ratio.

Companies/Year	2018	2019	2020	2021	2022
TATA Motors	-5.13	9.11	-41.60	-12.57	-6.97
M & M Ltd	14.37	14.01	3.89	0.78	12.74

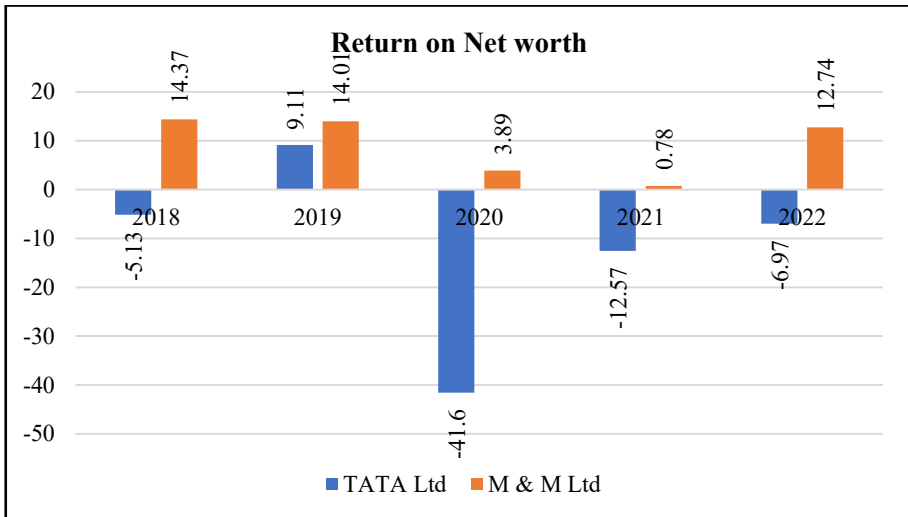


Fig. 6. Return on net worth ratio.

Interpretation: The graph shows the return on net worth ratio of Tata motors in the year 2018 was -5.13, 2019 was 9.11, 2020 is -41.60, 2021 is -12.57 and in the year 2022 it is -6.97. Whereas the return on net worth ratio of M & M ltd in the year 2018 was 14.37, in 2019 was 14.01, in 2020 was 3.89, in 2021 it is 0.78 and in the year 2022 the return on net worth ratio was 12.74. The return on net worth ratio of Tata Motors showing the negative figure except in the year 2019 and the M & M ltd was gradually increasing in the return on net worth for the five years.

Table 7. Gross profit ratio.

Companies/Year	2018	2019	2020	2021	2022
TATA Motors	0.35	2.66	-9.16	-0.91	-0.55
M & M Ltd	9.74	8.91	7.86	9.48	7.99

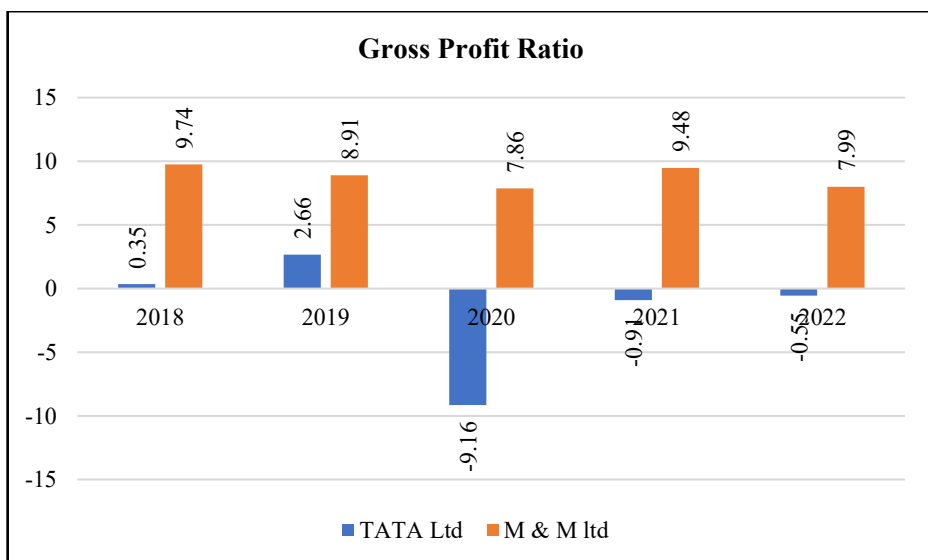


Fig. 7. Gross profit ratio.

Interpretation: The graph shows the Gross Profit ratio of Tata Motors in the year 2018 was 0.35, 2019 was 2.66, 2020 is -9.16, 2021 is -0.91 and in the year 2022 it is -0.55. Whereas the Gross profit ratio of M & M Ltd in the year 2018 was 9.74, in 2019 was 8.91, in 2020 was 7.86, in 2021 it is 9.48 and in the year 2022 the gross profit ratio was 7.99. The gross profit ratio of Tata Motors showing the decreasing figure from the year 2018 to 2022 and it went down to negative value and the M & M Ltd was gradually decreasing from the year 2018 but not in negative figure. The company maintained the proper gross profit ratio even though it was reducing in the following year.

Table 8. Net profit ratio.

Companies/Year	2018	2019	2020	2021	2022
TATA Motors	-1.75	2.91	-16.59	-7.93	-2.94
M & M Ltd	8.94	8.94	2.92	0.59	8.59

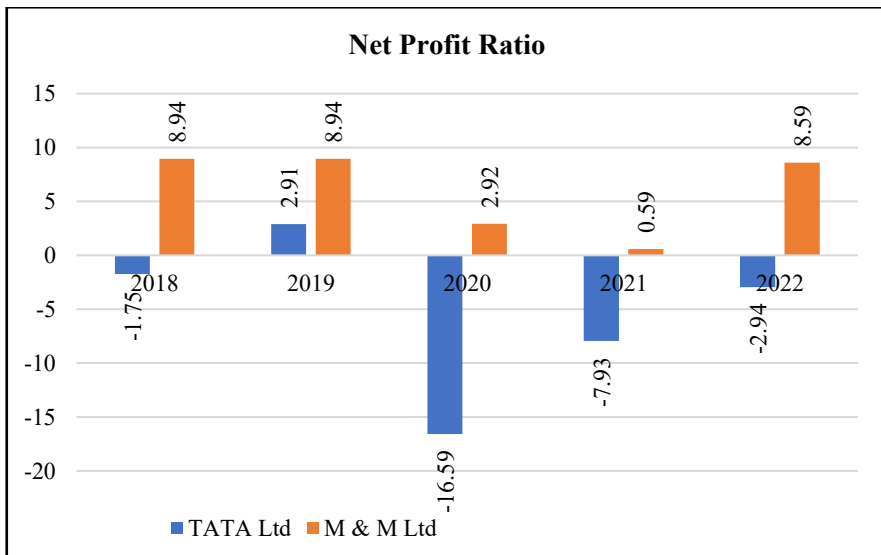


Fig. 8. Net profit ratio.

Interpretation: The above graph shows the Net Profit ratio of Tata Motors in the year 2018 was -1.75, 2019 was 2.91, 2020 is -16.59, 2021 is -7.93 and in the year 2022 -2.94. Whereas the net profit ratio of M & M Ltd in the year 2018 was 8.94, in 2019 was 8.94, in 2020 was 2.92, in 2021 it is 0.59 and in the year 2022 the net profit ratio was 8.59. The net profit ratio of Tata Motors showing the decreasing figure from the year 2018 to 2022 and it went down to negatively and the M & M Ltd was gradually decreasing from the year 2018 but in the year 2022 it went high.

Table 9. Debt to equity ratio.

Companies/Year	2018	2019	2020	2021	2022
TATA Motors	0.81	0.79	1.19	1.14	1.17
M & M Ltd	0.09	0.07	0.09	0.21	0.17

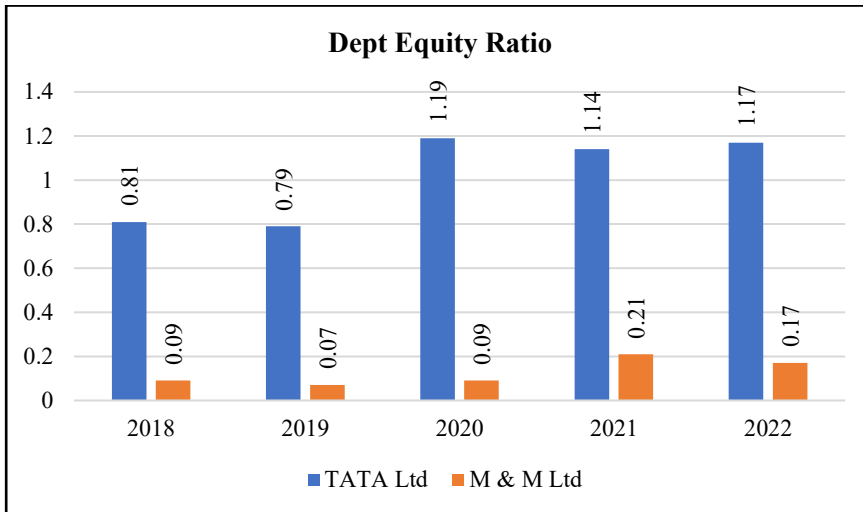


Fig. 9. Debt to equity ratio.

Interpretation: The graph shows the debt-to-equity ratio of Tata Motors in the year 2018 was 0.81, 2019 was 0.79, 2020 is 1.19, 2021 is 1.14 and in the year 2022 is 1.17. Whereas the debt-to-equity ratio of M & M Ltd in the year 2018 was 0.09, in 2019 was 0.07, in 2020 was 0.09, in 2021 it is 0.21 and in the year 2022 the debt-to-equity ratio was 0.17. The debt equity ratio of Tata Motors and M & M Ltd showing the increasing figure from the year 2018 to 2022.

6 Discussion of the study

- By comparing the Net sales of TATA Motors with M & M Ltd for the period 2018 to 2022 the net sales of Tata Motors are persistent decline. But the M & M Ltd showed decline in the year 2020 and 2021 but it increased in the year 2022. Thus, it is to be said that M & M Ltd performed well in its sales.
- In the analysis of gross profit earned by both the companies, the M & M Ltd shows the good value in the profit earning compared with the Tata Ltd.
- Net income of M & M Ltd is increasing but it reduced during and after the pandemic years i.e., 2020 and 2021. During 2022 the net sales of M & M Ltd was increased compared to previous year. In Tata Motors case the net profit of Tata Motors is falling. Thus M & M Ltd makes more profit.
- Earnings per share proportion of M & M Ltd is higher by analysing the data with Tata Motors. It proves that M & M Ltd keeping good position than Tata Motors.
- Return on capital employed ratio of Tata Motors Ltd is low when compare to M & M Ltd. Even though M & M Ltd have good value, the ratio was in decreasing way.
- Return on net worth ratio of M & M Ltd is high when compare to Tata Motors Ltd. This shows that the M & M Ltd is having a good return for its net worth.
- The Tata Motors Ltd Gross profit ratio
Gross profit ratio is showing declining percentage of gross profit in Tata Motors whereas ratio of M & M Ltd is rising which is good for the company.
- Net profit ratio is showing rising percentage of profit of M & M Ltd except in the year 2020 and 2021 but after the percentage increased after the following year which show it is a growing company whereas ratio of Tata Motors is declining percentage.

- Debt equity ratio of Tata Motors is more as compared to M&M Ltd which shows Tata Motors has less of its own capital.
- Tata Motors should be more adaptable to capture more customer range which will help to increase its net sales in comparisons to M& M Ltd.
- To increase the gross profit, the Tata Motors should try to reduce its direct expenses and increase sales whereas M & M Ltd has an increasing profit compare to Tata Motors.
- Net profit of M & M Ltd is rising except the post pandemic year but net profit of Tata Motors is falling which is can be upstretched by reducing its debts as payment of interest are given more.
- Earnings per share of M & M Ltd are high as compared to Tata Motors. Tata Motors earning per share was decreasing with the negative value and it can increase its earnings through earning more profits which will increase the value of shares of the Tata motors.
- The return on capital employed ratio of the TATA Motors is less while comparing with the M & M Ltd. The Tata Motors have to put more effort to improve its profit by reducing its expenses so that the return for the capital will be increased gradually.
- The return on net worth ratio is higher for M & M Ltd when comparing with the Tata Motors Ltd. Thus, the M & M Ltd is generating profit from its shareholders fund and Tata Motors should concentrate to increase the profit by reducing the expenses.
- Gross profit ratio is showing declining percentage of gross profit in Tata Motors whereas ratio of M & M Ltd is maintaining good gross profit ratio but it was reduced in the year 2022 after a huge hike in 2021. So, both the companies should concentrate in its sales.
- Net profit ratio is showing decreasing percentage of profit of M& M Ltd till the year 2021 but it was increased in the year 2022 whereas ratio of Tata Motors is declining which should be increased by reducing debts which willdecrease interest payment.
- Debt equity ratios of Tata Motors is more as compared to M& M Ltd. The Tata Motors should decrease receiving funds from external financing and do more internal financing by increasing its profit through sales.

7 Conclusion

The research about the financial performance of the two automobile companies such as Tata Motors and M & M Ltd provided many information about their performance. The research is based on the secondary date which is collected from the different journals, articles, annual reports of the companies. By analysing the financial position of the two companies it is clear that the net sales of the M & M Ltd is higher than the Tata Motors. It shows that even though the Tata Motors is performing well in its sales it has to concentrate to reduce its expenses to increase the profit. Likewise in the aspects of earnings per share, return on capital employed ratio, return on net worth ratio, gross profit ratio and net profit ratio the Tata Motors is lesser than the M & M Ltd. After analysingthe aspects in this research, it says that M& M Ltd is betterthan Tata Motors from the year 2018 to 2022.

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