

## FINANCIAL PERFORMANCE OF TATA MOTORS AND M&M

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### ABSTRACT

*This study aims to compare the financial positions of Tata Motors and Mahindra & Mahindra, two prominent players in the automotive industry. Various aspects such as market share, revenue, profit margins, growth trends, and key financial ratios are analyzed to provide insights into their financial performance. Additionally, the impact of technological advancements in the automotive sector is considered.*

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**Keywords:** Tata Motors, Mahindra and Mahindra, Financial Performance, Comparative Analysis.

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### Introduction

#### Key Areas of Analysis

- **Profitability Ratios:** This section will analyze how both companies generate profits from their sales, assets, and equity. Key profitability ratios such as net profit margins, return on assets (ROA), and return on equity (ROE) will be compared.
- **Liquidity and Solvency:** Short-term solvency ratios (current ratio, quick ratio) and long-term solvency ratios (debt-to-equity ratio) will be assessed to understand how well the companies are positioned to meet their financial obligations and manage debt.
- **Growth Trends:** The revenue growth, core EBITDA growth, and PAT growth of Tata Motors and Mahindra & Mahindra will be examined, offering insight into the companies' growth trajectories.
- **Technological Impact:** The study will also explore how the focus on electric vehicles (EVs), sustainability initiatives, and other technological advancements are shaping the financial performance of both companies. How have Tata Motors and Mahindra & Mahindra invested in R&D and innovation to drive growth and stay competitive?

#### Introduction to the Companies

Tata Motors, established in 1945, is a leading Indian automotive manufacturer recognized globally for its extensive range of vehicles including passenger cars, trucks, buses, and utility vehicles. The company is known for its commitment to innovation, sustainability, and corporate social responsibility, as evidenced by its eco-friendly vehicle initiatives and community engagement efforts. With a focus on quality and customer satisfaction, Tata Motors continues to shape the future of mobility through advanced technologies and visionary leadership.

Mahindra & Mahindra, a renowned multinational corporation headquartered in India, operates across diverse sectors such as automotive, aerospace, and agriculture. Founded in 1945, the company has established itself as a key player in the automotive industry, specializing in the manufacturing of tractors, electric vehicles, and rugged SUVs. Mahindra is distinguished by its dedication to sustainability and innovation, exemplified by its development of environmentally friendly technologies and advocacy for renewable energy sources. The company prioritizes stakeholder satisfaction and social responsibility, emphasizing customer-centricity and positive societal impact.

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**Literature Review** An extensive array of literature highlights the importance of financial performance in evaluating the sustainability and competitiveness of firms within the automotive industry. Rossetal. (2018) assert that ratios related to profitability, liquidity, and solvency are crucial for assessing a company's financial well-being. Research from Brigham and Houston (2018) stresses the significance of financial management in reducing risks and enhancing returns, particularly in capital-intensive sectors like automotive manufacturing.

Various research findings indicates that financial ratios, including the current ratio, quick ratio, and debt-to-equity ratio, can provide important insights into a company's capacity to handle its obligations and pursue long-term growth. As noted by Penman (2013), liquidity ratios such as the current ratio and quick ratio are essential for assessing short-term solvency and operational efficiency, whereas debt ratios shed light on the extent of reliance on debt financing. In this analysis, the differing figures in Tata Motors and Mahindra & Mahindra's ratios, particularly regarding short-term and long-term solvency, highlight significant disparities in their financial approaches and stability.

According to Brigham and Houston (2018), profitability ratios enable analysts to evaluate how effectively a company manages its resources to generate profits. The existing literature emphasizes that strong profitability is vital for maintaining growth, especially in the automotive industry, where margin pressures and international competition can impede financial success. In the case of Tata Motors, its fluctuating profitability during specific years (2020-2022) illustrates the challenges brought about by external factors like market conditions, while Mahindra & Mahindra shows more stable profitability.

Research conducted by Palepuetal (2019) indicates that while technological innovation may necessitate significant capital investments, it also creates opportunities for improved profit margins and sustained growth. Tata Motors' focus on sustainability and electric vehicles, alongside Mahindra & Mahindra's pioneering role in electric mobility, illustrates how both companies are utilizing technological advancements to strengthen their competitive position.

According to Brigham & Houston, (2018) effective financial management is crucial for companies operating in capital-intensive sectors to cope with competitive challenge. In this context, Tata Motors' consistently higher debt ratios compared to Mahindra & Mahindra are reflect a more aggressive dependence on external financing, which may elevate financial risk. In contrast, Mahindra & Mahindra's comparatively superior liquidity and lower leverage point to a more cautious approach to financial management, which could be beneficial in times of economic uncertainty.

### Research Methodology

The methodology encompasses secondary sources which are explained as follows:

#### Data Collection

Data for this research has been collected from publicly available sources, such as annual reports, financial statements, and other relevant corporate disclosures of Tata Motors and Mahindra & Mahindra. Financial data from the past three years (2021-2023) are analyzed to evaluate trends and shifts in their financial positions. The key data sources include:

- **Annual Reports:** These provide detailed financial statements such as income statements, balance sheets, and cash flow statements.
- **Financial Databases:** Secondary sources, such as Bloomberg, Reuters, and company filings, have been referred to in order to gather market data and historical financial figures.
- **Industry Reports:** These offer insights into industry performance trends, market share analysis, and technological advancements affecting the automotive sector.

#### Data Analysis Techniques

Several financial analysis tools and techniques have been employed to interpret the collected data. The primary techniques used include:

- **Descriptive Statistics:** Descriptive statistics such as the mean, standard deviation and coefficient of variation are used to summarize and understand the general trends and variations in the financial performance of the two companies.
- **Mean:** Used to calculate the average values for key metrics such as revenue growth, profit margins, and financial ratios.
- **Standard Deviation:** Measures the volatility or risk associated with the companies' financial performance, helping in risk assessment.

- **Coefficient of Variation:** Used to assess the risk-adjusted return by comparing variations in performance relative to the mean.
- **Ratio Analysis:** This is the core of the comparative analysis. Several key financial ratios are calculated and compared between Tata Motors and Mahindra & Mahindra. These ratios are categorized as follows:
- **Short Term Solvency Ratios:** These include the current ratio and quick ratio, which evaluate the liquidity and ability of the companies to meet short-term obligations.
- **Long-Term Solvency Ratios:** these include the debt-to-equity ratio and interest coverage ratio, assessing the companies' leverage and ability to meet long-term obligations.
- **Profitability Ratios:** these include net profit margin, return on assets (ROA), return on equity (ROE), and EBITDA margin. These ratios help evaluate the companies' efficiency in generating profits relative to sales, assets, and equity.
- **Growth Ratios:** Metrics like net sales growth, core EBITDA growth, EBIT growth, and PAT growth are used to assess the companies' growth trajectory and profitability trends over time.
- **Trend Analysis:** Historical data from 2020 to 2023 is analyzed to identify trends in key financial metrics. This approach provides insights into the companies' performance under different economic and market conditions.
- **Technological Impact Assessment:** The study also evaluates the financial implications of technological advancements such as electric vehicles (EVs) and automation in the automotive industry. It assesses how both Tata Motors and Mahindra & Mahindra have incorporated these technologies into their operations and investments in research and development (R&D), and how such initiatives have impacted their financial performance.

#### Short-Term Solvency Analysis

Liquidity is crucial for meeting short-term obligations. Liquidity ratios assess a company's ability to convert assets into cash to cover current liabilities promptly.

- **Current Ratio:** This ratio evaluates a firm's ability to repay short-term debts using current assets. A ratio above 1 indicates healthy liquidity.

Following table highlights the difference between the ratios of these companies:

Years	Tata Motors	Mahindra and Mahindra
2021	0.93	12.03
2022	0.97	13.49
2023	0.97	9.04

- **Quick Ratio:** also known as the acid test ratio, measures a company's ability to settle current liabilities quickly with near-cash assets.

Following table highlights the difference between the ratios of these companies:

Year	Tata Motors	Mahindra And Mahindra
2021	0.70	12.03
2022	0.74	13.49
2023	0.71	9.04

#### Liquidity and Short-Term Solvency

Liquidity ratios, such as the current ratio and quick ratio, are essential for understanding a company's ability to meet its short-term obligations. A healthy liquidity position is crucial for the automotive industry, where substantial investments in manufacturing and R&D are required.

Tata Motors and Mahindra & Mahindra present stark differences in their short-term solvency positions. Tata Motors' liquidity ratios, particularly the current ratio and quick ratio, have consistently remained below the industry standard of 1, indicating potential concerns regarding its ability to meet short-term obligations with its available assets. For instance, Tata Motors' current ratio was recorded at 0.93 in 2021, indicating a slight liquidity squeeze.

In comparison, Mahindra & Mahindra shows significantly better liquidity, with ratios well above 1 in all three years analyzed. For example, in 2023, Mahindra's current ratio stood at 9.04, illustrating a strong liquidity position that enhances its ability to cover short-term liabilities with ease. This liquidity cushion provides Mahindra with more flexibility in operational activities and shields it from short-term financial stresses.

### Long-Term solvency Analysis

Long-term solvency ratios assess a company's ability to meet long-term obligations and the extent of reliance on debt financing

- **Debt-to-Equity Ratio:** this ratio compares a company's debt to its equity, indicating its financial leverage.

Following table highlights the difference between the ratios of these companies:

Year	Tata Motors	Mahindra And Mahindra
2021	2.46	4.14
2022	3.14	3.69
2023	2.78	4.40

- **Interest Coverage Ratio:** It evaluates the company's ability to meet its interest obligations, indicating its debt servicing capacity.

Following table highlights the difference between the ratios of these companies:

Year	Tata Motors	Mahindra And Mahindra
2021	-0.29	1.88
2022	0.25	2.87
2023	1.30	3.41

### Profitability Analysis

Profitability ratio measure a company's ability to generate profits from various aspects of its operations.

- **Margin Ratios:** including gross profit margin, operating margin, and net profit margin, these ratios assess profitability relative to sales and operational costs.
- **Return Ratios:** such as return on assets, return on capital invested, and return on equity, these ratios measure profitability relative to assets and equity.
- **Growth Ratios:** These ratios indicate the growth trajectory of key financial metrics over time, providing insights into a company's performance dynamics.

Following table highlights the difference between the ratios of these companies:

	Year	Tata Motors	Mahindra And Mahindra
Net sales growth(%)	2020	-13.54	14.59
	2021	-4.32	1.90
	2022	11.47	-6.55
	2023	24.25	12.21
Core EBITDA growth (%)	2020	-24.14	-2.85
	2021	66.65	-13.67
	2022	-20.49	-1.16
	2023	31.61	34.42
EBIT Growth (%)	2020	86.97	-3.87
	2021	28.76	-10.72
	2022	197.11	-3.80
	2023	475.41	32.37
PAT Growth	2020	62.07	-42.87
	2021	-18.60	-28.77
	2022	13.69	55.30
	2023	120.95	80.05
Cash profit margin	2020	4.00	7.69
	2021	4.22	9.20
	2022	4.88	11.53
	2023	7.87	12.45

- **Operational and Financial Ratios:** These ratios, including earnings per share, cash Earnings per share, dividend per share, and book value per share offer insights into a company's operational and financial performance.

Following table highlights the difference between the ratios of these companies:

	Year	Tata Motors	Mahindra And Mahindra
Earnings per share (RS)	2020	-33.55	1.15
	2021	-35.13	30.15
	2022	-29.88	59.14
	2023	6.30	92.32
CEPS(RS)	2020	29.05	54.84
	2021	27.50	63.77
	2022	35.52	96.76
	2023	71.06	141.26
DPS(RS)	2020	-	2.35
	2021	-	8.75
	2022	-	11.55
	2023	2.00	16.25
Book NAV/share(RS)	2020	172.89	358.16
	2021	144.23	372.22
	2022	116.26	421.71
	2023	118.17	503.80
Tax rate(%)	2020	-3.74	42.14
	2021	-24.27	30.78
	2022	-60.42	22.53
	2023	23.03	19.10

Benefits of reading of financial performance of Tata motors and Mahindra and Mahindra to various stakeholders:

Several stakeholders, including investors, analysts, consumers and business professionals, can gain from reading of tata Motors and Mahindra & Mahindra's(M&M) financial performance. The following are some major benefits:

- **Choosing an Investment:** Investors can evaluate market trends, revenue growth, and profitability to make well-informed choices about purchasing, keeping, or disposing of equities. Financial statements assist investors in adjusting their portfolios by highlighting risk factors and potential future growth.
- **Benchmarking for Competition:** Knowledge of Tata Motors' and M&M's competitive advantages and disadvantages can be gained by comparing their performance to that of their peers in the industry. Depends on stability and growth trends to assist suppliers and enterprises in selecting a partner company.
- **Market Patterns & Industry Perspectives:** Broader trends in the tractor and automotive industries can be found by examining sales data, profit margins, and revenue growth. It provide insight into sector- specific potential, customer demand, and the deployment of electric vehicles (EVs).
- **Business Forecasting & Strategy:** These paper offer company leaders and Entrepreneurs valuable insights into developing technologies, effective strategies, and possible holes in the market. Assists businesses (dealers, suppliers, and financial institutions) in the automobile ecosystem in changing their business plans.
- **Evaluations of Credit and Loans:** Institutions such as banks evaluate financial performance prior to granting credit or loans for capital investments, infrastructure projects, and business expansion.
- **Policy & Government Choices:** Financial data can be used by policymakers to influence tax laws, industry rules, and incentives for the development of electric vehicles and autos.

#### Technological Impact

Both Tata Motors and Mahindra & Mahindra have embraced technological advancements, particularly in the electric vehicle (EV) sector. While Tata Motors made significant strides with models such as the Nexon EV, Mahindra has also been a pioneer in electric mobility, with its e2o Plus and eVerito. Technological innovations often require significant upfront investments in research and development (R&D), and both companies have committed substantial resources to these initiatives.

Tata Motors' investments in electric vehicles and autonomous driving technologies have had mixed effects on its financial performance. While the initial capital expenditure required for EV development has pressured short-term profitability, the long-term benefits, including the potential for higher margins and greater market share, are expected to enhance its financial standing.

Similarly, Mahindra's focus on EVs and sustainability has aligned well with global shifts towards cleaner and greener technologies. The company's commitment to electric mobility, evidenced by its growing range of EV models, has positioned it as a leader in the segment, improving its competitive edge and offering significant future growth opportunities.

### Challenges and Opportunities

- **Economic Uncertainty:** The study will discuss the impact of global and national economic fluctuations, including raw material price changes, supply chain disruptions, and inflation, on the financial stability of Tata Motors and Mahindra & Mahindra.
- **Competition in the EV Market:** As both companies invest heavily in EVs, the study will explore the challenges they face in competing with global automakers and the opportunities in expanding their EV offerings in the domestic and international markets.

### Conclusion

This research paper provides a comprehensive comparative analysis of the financial performance of Tata Motors and Mahindra & Mahindra from 2021 to 2023, offering valuable insights into their respective strategies, strengths, and weaknesses. The automotive industry, marked by rapid technological advancements, fluctuating market conditions, and evolving consumer preferences, has posed significant challenges for both companies. However, Tata Motors and Mahindra & Mahindra have navigated these challenges in distinct ways, resulting in varying financial outcomes.

Tata Motors has shown resilience in the face of fluctuating profitability, with significant growth driven by its strong push into the electric vehicle (EV) market and the continued success of its commercial vehicle segment. While the company has faced occasional profitability setbacks and liquidity challenges, its aggressive expansion strategy and focus on sustainable mobility have positioned it well for future growth. The company's global footprint, technological innovation, and investments in EV infrastructure give it a competitive edge in a rapidly changing industry.

In contrast, Mahindra & Mahindra has demonstrated a more consistent financial performance, with stable profitability and stronger liquidity ratios. The company's conservative financial management, along with a diversified business model that spans automotive manufacturing, agriculture, and renewable energy, has allowed it to maintain steady growth. Mahindra's focus on electric mobility, particularly through its Mahindra Electric subsidiary, positions it as a strong contender in the sustainable transportation sector. Moreover, its stable debt levels and robust solvency ratios provide a cushion against external risks, offering a safer investment proposition for risk-averse stakeholders.

Both companies have recognized the importance of technological innovation and sustainability in driving future growth. Tata Motors' significant investments in electric vehicles and green technologies signal its commitment to leading the transformation of the automotive sector. Similarly, Mahindra & Mahindra's approach to sustainable mobility, coupled with its diverse portfolio, has ensured that it remains a strong player in the market.

In conclusion, while Tata Motors and Mahindra & Mahindra have employed different strategies to manage their financials and grow in the competitive automotive market, both have demonstrated strong potential for long-term success. The findings of this research serve as a strategic guide for investors, analysts, and other stakeholders, offering valuable insights into the financial health and future prospects of these two leading Indian automotive giants.

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**Annexure Mahindra & Mahindra Ltd.****Balance Sheet (Consolidated)**

<b>Balance Sheet</b>	<b>2023</b>	<b>2022</b>	<b>2021</b>
<b>Equities and Liabilities</b>			
Equity Share capital	599.05	598.30	596.52
Reserves and Surplus	42497.35	38139.19	33649.65
Total Current liabilities	26039.99	18820.29	15133.17
Total noncurrent liabilities	6383.09	9349.02	9953.71
Total Capital and liabilities	75779.81	67130.26	59588.80
<b>Assets</b>			
Fixed Assets	19760.82	19566.79	15011.51
Non Current Assets	41136.18	41212.56	39276.50
Current assets	34643.63	25917.70	20312.30
Total Assets	75799.81	67130.26	59588.80
<b>Other Additional Information</b>			
Contingent Liabilities	7279.74	4067.07	5540.49

**Tata Motor Ltd.****Balance Sheet (Consolidated)**

<b>Balance Sheet</b>	<b>2023</b>	<b>2022</b>	<b>2021</b>
<b>Equities and Liabilities</b>			
Equity Share Capital	766.02	765.88	765.81
Reserves and Surplus	21701.37	19171.88	18290.16
Total Current Liabilities	25803.53	26992.81	26251.55
Total Noncurrent Liabilities	13497.39	16962.91	19752.14
Total Capital and Liabilities	61770.77	63899.87	65059.66
<b>Assets</b>			
Fixed assets	15627.27	15543.00	29429.56
Non Current Assets	50270.82	48280.26	49205.07
Current assets	11499.95	15619.61	15854.59
Total Assets	61770.77	63899.87	65059.66
<b>Other Additional Information</b>			
Contingent Liabilities	2515.88	3353.04	3694.20

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