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Study on Financial Performance Analysis of Select EV Manufacturing Companies in India

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Abstract

The present study examines the financial performance of selected electric vehicle manufacturing companies in India, focusing on key metrics such as profitability, leverage, and liquidity. The study evaluates the financial health of seven prominent companies- Ather Energy, Greaves Electric Mobility, JBM Electric Vehicles, Tunwal E-Motors, Olectra Greentech, and Wardwizard Innovations & Mobility using time series analysis and regression models. By analyzing trends in sales, profit/loss, capital investments, and financial leverage from 2020 to 2024, the study uncovers key findings regarding the growth, challenges, and inefficiencies these companies face in the rapidly evolving electric vehicles sector. The study also provides actionable suggestions to enhance financial sustainability, focusing on cost management, strategic investments, and effective utilization of capital. The findings provide valuable insights into the financial dynamics of the Indian Electric Vehicles industry, which can assist policymakers, investors, and industry leaders in shaping the future of electric mobility in India.

Keywords: Electric Vehicles, Financial Performance, Profitability, Leverage, Liquidity.

1. Introduction

The Indian electric vehicle (EV) market has experienced significant growth in recent years, driven by government policies, environmental concerns, and advancements in battery technology. As the world transitions toward sustainable mobility solutions, electric vehicles have emerged as a key component of this transformation. This study aims to analyse the financial performance of selected EV manufacturers in India, assessing key financial indicators such as profitability, leverage, and liquidity. The analysis includes a review of the financial health of seven EV companies: Ather Energy, Greaves Electric Mobility, JBM Electric Vehicles, Tunwal E-Motors, Olectra Greentech, and Wardwizard Innovations & Mobility. The study employs quantitative tools such as time series analysis and regression to examine trends in sales, profit, capital investment, and financial leverage over the past five years (2020-2024).

The goal of this study is to provide insights into the financial dynamics of these companies, identify potential challenges, and offer recommendations for improving their financial performance. As the EV market continues to expand in India, understanding the financial standing of key players is crucial for ensuring the sector's long-term success. This study aims to enhance the understanding of the financial viability of the EV industry by offering data-backed insights that can guide investors, industry stakeholders, and policymakers in making informed decisions.

2. Literature Review

Recent studies have explored the dynamics of electric vehicle (EV) adoption in India, emphasizing both opportunities and challenges. Sharma and Mehta (2023) highlighted the role of government policies such as FAME in lowering production costs and boosting demand, thereby enhancing financial outcomes for EV manufacturers. Similarly, Kumar et al. (2022) noted that advancements in battery technology and localized marketing strategies will be crucial for expanding market reach and improving profitability. Singh and Verma (2021) identified key adoption barriers- high upfront costs, limited charging infrastructure, and range anxiety- while also pointing to the potential of vehicle-to-grid (V2G) technologies to offset operational inefficiencies. The importance of aligning business strategies with sustainability goals is evident in Rao and Iyer's (2023) work, which links EV growth with emissions reduction and long-term viability.

On the global front, the IEA's Global EV Outlook (2024) benchmarked Indian manufacturers against international trends, underlining the need for innovation and competitiveness. Domestically, the FY2024 EV Report Card recorded a 42% growth in EV sales, led by two-wheelers, and noted regional adoption trends influencing financial performance. Das and Prakash (2024) tracked the five-year financial trends of leading Indian EV firms, finding that while incentives improved revenues, sustainable growth requires robust business models. Malhotra et al. (2023) examined the impact of the PLI scheme on domestic battery production, concluding that reduced import dependence and supply chain resilience can boost financial health. Likewise, Joshi and Bansal (2023) evaluated FAME II using sustainable asset valuation, noting benefits such as job creation and pollution reduction, all contributing to long-term financial viability. Overall, the literature underscores that policy support, technological advancement, and market adaptability are central to the financial performance and sustainability of EV manufacturers in India.

3. Statement of the Problem

India's electric vehicle (EV) industry is growing fast due to environmental concerns, rising fuel costs, and government support through schemes like FAME and PLI. However, the long-term financial strength of many EV companies is still uncertain. Companies such as Ola Electric and Ather Energy rely heavily on government subsidies, raising questions about whether they can stay profitable without this support. At the same time, high production costs, lack of charging infrastructure, and strong competition make it harder for these companies to succeed financially. Even though the industry is expanding, it is not clear if these companies have strong financial foundations or are mainly surviving because of government help. A proper financial analysis is needed to understand if they can remain profitable and grow in the future, especially when subsidies are reduced.

4. Objectives of the Study

This study aims to assess the financial performance of select EV manufacturers in India through the following objectives:

- To evaluate the profitability of selected EV manufacturing companies in India.
- To assess the leverage position of selected EV manufacturing companies in India.
- To examine the liquidity position of selected EV manufacturing companies in India.

5. Scope of the Study

This study analyses the financial performance of selected Indian EV manufacturers over five years, focu-

sing on sales, profitability, capital structure, and cost efficiency. It excludes related sectors such as battery production, charging infrastructure, and component suppliers. Time series forecasting and regression analysis are used to identify financial trends and predict future outcomes. The study also examines the impact of government policies and market conditions on company performance. The findings aim to assist investors and policymakers in understanding the financial sustainability and competitive positioning of EV companies within a rapidly evolving, subsidy-dependent market.

6. Limitations of the Study

The study's limitations include:

- Focus on financial factors, excluding technology and consumer behaviour changes.
- Assumes stable government policies, though changes may affect results.
- Limited to selected companies, not accounting for new entrants.
- Five-year data may not reflect long-term trends or future uncertainties.
- Non-financial aspects like brand reputation and sustainability are not considered.

7. Research Methodology

Research Design: A descriptive research design was used to analyse the financial data on revenue, profit, and capital employed of selected EV manufacturing companies in India.

Data Sources: Secondary data were collected from annual financial reports, official company websites, financial databases, business news portals, government publications, regulatory filings, industry research reports, and scholarly articles.

Time Frame: The study covers financial data from FY 2020 to FY 2024.

Population and Sampling: The population includes all EV manufacturing companies in India. The selected seven companies were:

- Ather Energy Private Limited
- Greaves Electric Mobility Private Limited
- JBM Electric Vehicles Private Limited
- Ola Electric Mobility Private Limited
- Olectra Greentech Limited
- Tunwal E-Motors Limited
- Wardwizard Innovations & Mobility Limited

Analytical Tools

A. **Time Series Forecasting (Least Squares Method):** Used to identify trends and forecast sales, net profit/loss, and capital employed. The equation is: $Y = a + bX$, where a is the intercept and b is the slope calculated from historical data.

B. **Regression Analysis:** Used to study relationships between financial variables, including:

- Sales vs. PBIT
- Capital Employed vs. PBIT
- Equity Capital vs. PAT
- Equity Capital vs. Debt

The regression equation: $Y = a + bX$, where a is the intercept and b is the regression coefficient.

8. Findings

The study evaluated the financial performance of selected EV manufacturing companies in India by analyzing their profitability, leverage, and liquidity using time series and regression techniques.

Objective 1: To evaluate the profitability of selected EV manufacturing companies in India

- **Profit/Loss Trends (Time Series):** Most companies exhibited improving profit trends from 2020 to 2024. JBM Electric Vehicles, Olectra Greentech, and Wardwizard Innovations showed consistent profit growth, whereas Ather Energy, Greaves Electric Mobility, and Tunwal E-Motors reported fluctuating profits.
- **Sales vs. Profit (Regression):** A positive correlation between sales and profit was observed, although high fixed costs impeded early profitability.
- **Capital Used vs. Profit (Regression):** Increased capital usage marginally improved profits, suggesting suboptimal capital efficiency.

Profitability is gradually improving but remains unstable due to high fixed costs and inefficient capital utilization.

Objective 2: To assess the leverage position of selected EV manufacturing companies in India

- **Capital Trends (Time Series):** All companies demonstrated an upward trend in capital investment. Notably, Ola Electric, JBM, Greaves Electric Mobility, and Wardwizard secured substantial capital increases.
- **Equity Capital vs. Debt (Regression):** Companies showed an inverse relationship between equity and debt, indicating a strategic preference for equity-based funding.

A dominant reliance on equity over debt indicates reduced financial risk, but necessitates efficient return generation for investors.

Objective 3: To examine the liquidity position of selected EV manufacturing companies in India

- **Sales Trends (Time Series):** Sales grew steadily across all companies during the study period, with Ola Electric, Ather Energy, JBM, and Wardwizard leading in sales acceleration.
- **Equity Capital vs. Profit After Tax (Regression):** Despite higher equity capital, profits after tax remained low, reflecting potential inefficiencies in cost or investment management.

Liquidity appears stable due to robust sales and funding, but low profitability points to the need for better operational efficiency and cost control.

9. Suggestions

- Reduce fixed costs and improve operational efficiency to increase profitability.
- Explore new products and markets to drive revenue growth.
- Invest in technology to lower costs and streamline operations.
- Use funds wisely by balancing debt and equity financing.
- Manage costs better and speed up product launches to boost profits.
- Enhance cash flow by accelerating payments and reducing inventory, and reinvest profits to support growth and reduce borrowing.

10. Conclusion

The present study analyzed the financial performance of selected electric vehicle companies in India by looking at their profitability, leverage, and liquidity. The results show that while sales and investments have grown steadily, many companies still face problems with high fixed costs and inefficient use of

capital, which limits their profits. Some companies like JBM Electric Vehicles, Olectra Greentech, and Wardwizard Innovations & Mobility showed steady profit growth. Others, like Ather Energy and Greaves Electric Mobility, had more fluctuating profits. Most companies are using more investor money and less debt, which reduces financial risks but increases the need to provide good returns to investors. The study suggests that companies should focus on controlling costs better, using capital more efficiently, and improving their operations. Doing so will help them become financially stronger and grow sustainably in India's fast-changing electric vehicle industry. The future success of this industry depends not only on growth but also on improving financial strength and efficiency to stay competitive in the long run.

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