

Market Structure and Sales Trends of Electric Vehicles in India: A Comparative Study

Ms. Sumitra Rani¹, Dr. Vipin Nandal²

¹Research Scholar, School of Commerce and Management, Om Sterling Global University, Hisar

²Assistant Professor, School of Commerce and Management, Om Sterling Global University, Hisar

Abstract: This study aims to analyze the sales and market penetration of electric vehicles by comparing India with rest of the world. This study is based on secondary data, which provides a comparative assessment of the market share of different electric vehicle categories and leading companies. The study's findings highlight a significant gap in the pace of electric vehicle sales and adoption in India compared to the global electric vehicles (EVs) market. In the Indian context, electric two-wheelers and three-wheelers are leading the way, with rapid adoption driven by their low cost and commercial applications. In contrast, the growth of electric cars remains relatively slow due to high initial costs and limited charging infrastructure. Furthermore, the study reveals that despite policy support and technological advancements, the Indian electric vehicle market remains in its developmental stage. Overall, this research highlights the current status of electric vehicles in the context of sustainable transportation in India.

Key-words: Electric vehicles, Sales Trends, Market Share, Market Penetration, Key Player

I. Introduction

The past decade has seen significant changes in the global transportation sector, with the emergence of electric vehicles as a key trend. Growing environmental concerns, the need to reduce dependence on fossil fuels, and control carbon emissions have made electric vehicles a viable alternative to conventional internal combustion engine vehicles. Internationally, electric vehicle sales and market penetration have seen steady growth in many developed countries, rapidly transforming the structure of the global electric vehicle market (IEA, 2023). The electric vehicle market in the Indian context is relatively nascent, but has seen significant progress in recent years. Policies implemented by the Government of India, such as the FAME scheme, production-based incentives, and state-level subsidies, are playing a key role in promoting EV adoption. This has resulted in a rapid increase in sales in India, especially of electric two-wheelers and three-wheelers, which are becoming increasingly acceptable among consumers due to their affordable cost and commercial use (NITI Aayog, 2022). However, market penetration of electric cars remains limited in India. High initial costs, lack of charging infrastructure, and factors related to consumer behavior are considered the main reasons for the slow growth of electric cars. In contrast, the share of electric cars in the global market is relatively high, leading to a clear difference in the EV market structure between India and the world (Bhardwaj & Kumar, 2021). This difference reflects the developing nature of the electric vehicle industry in India. Against this backdrop, this study analyzes the market structure and sales trends of electric vehicles in India and compares them with the global landscape. The study aims to understand the changes in market share across various electric vehicle segments and leading companies. This research clarifies the current state of India's electric vehicle market for future prospects and policy direction.

II. Review of Literature

The literature on electric vehicles clearly demonstrates that sustainable development and carbon emissions reduction are key drivers of structural change in the global transport sector. Several studies have noted that market penetration of electric vehicles is relatively high in developed countries, primarily due to strong policy support, advanced charging infrastructure, and technological innovation (IEA, 2023). Global literature indicates that electric vehicles are no longer just an environmental choice but also a crucial part of economic and industrial strategy.

In the Indian context, the available literature indicates that the electric vehicle market is still in its developing stage. According to a study by NITI Aayog (2022), the pace of EV adoption in India is primarily influenced by government policies, subsidies, and urban transportation needs. In particular, schemes like FAME have boosted sales of electric two-wheelers and three-wheelers. Several studies also highlight that the structure of the EV market in India differs from the global market, where smaller and more affordable vehicles are playing a more prominent role. Many scholars have analyzed the economic and social factors driving electric vehicle adoption. Bhardwaj and Kumar (2021) stated that high initial costs, limited availability of charging infrastructure, and consumer behavior are the key reasons for the slow growth of electric cars. Similarly, Kumar

et al. (2020) study concluded that EV adoption in developing countries is phased, with commercial and public-use vehicles being adopted first and then rapidly. Literature on market structure and sales trends indicates that electric two-wheelers and three-wheelers dominate the market in India. According to Singh and Sharma (2022), the primary reasons for the popularity of these vehicles are their affordable price, low operating costs, and utility in urban transportation. In contrast, the market for electric cars remains limited, while globally, electric cars represent a significant portion of EV sales. Company-level studies have found that competition in the electric vehicle industry in India is rapidly increasing. Some research indicates that traditional automobile companies are now strengthening their presence in the electric segment, leading to structural changes in the market (Deloitte, 2023). This trend is also evident in the changes in market share during fiscal years 2024 and 2025. A comparative review of the global and Indian EV market also reveals that market penetration in India is currently lower than the global average, but growth potential is high. Several studies have argued that rapid growth in electric vehicle sales in India is possible if charging infrastructure, cost, and technological barriers are effectively addressed (World Bank, 2021). Thus, the available literature establishes that India’s EV market is in a transitional phase.

The above literature review clearly demonstrates that while extensive research on electric vehicles is available, there remains a need for comparative studies on the market structure and year-by-year sales trends of various EV segments in India. Analyzing the Indian situation, particularly from a global perspective, presents an important research direction, which this study attempts to address.

III. Objectives of the Study

1. To explore differences in sales trends and market penetration of electric vehicles between India and the Global market.
2. To analyze the market structure and growth trends in various electric vehicle segments in India.
3. To comparatively evaluate the market share of top five electric vehicle companies during the financial years 2024 and 2025.

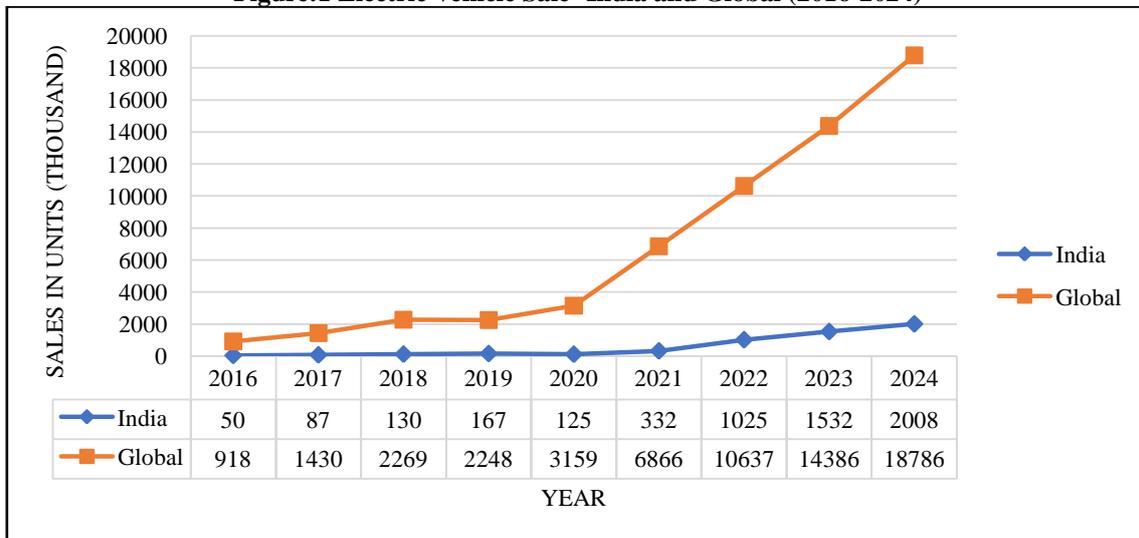
IV. Research Methodology

This study is descriptive and analytical in nature, drawing on secondary data. Data for the research were collected from reliable global and Indian reports, government publications, and research papers. The study analyzes electric vehicle sales, market penetration, and comparisons across various vehicle categories. Specifically, the market share of the top five companies during financial year 2024 and financial year 2025 was evaluated. The collected data was analyzed using tables and percentages.

V. Structure and Growth of the Indian E-Mobility Market.

E-mobility is an important aspect in mitigating CO₂ emissions in the Indian transportation sector. India can do it by switching its internal combustion engine (ICE) vehicles to electric vehicles and drastically reduce air pollution in cities, while conserving fossil fuels. E-mobility offers a promising future in the face of increasing alarm over climate change, energy security, and human health.

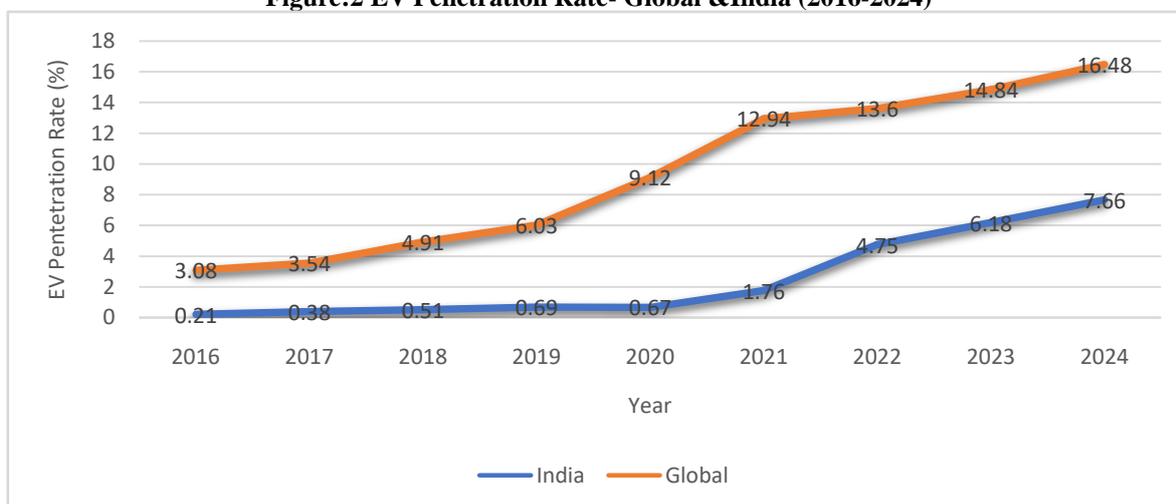
Figure:1 Electric Vehicle Sale- India and Global (2016-2024)



Source: IEA Global EV Data Explorer, 2025

The figure 1 shows a steady increase in electric vehicle sales at both India and global levels. Sales remained limited in the initial years and showed gradual improvement over time. A noticeable slowdown appears around 2020 due to pandemic. After this period sales growth accelerated strongly. Policy incentives and expanding market demand supported this upward trend. Global sales remain higher because of early adoption and larger market size.

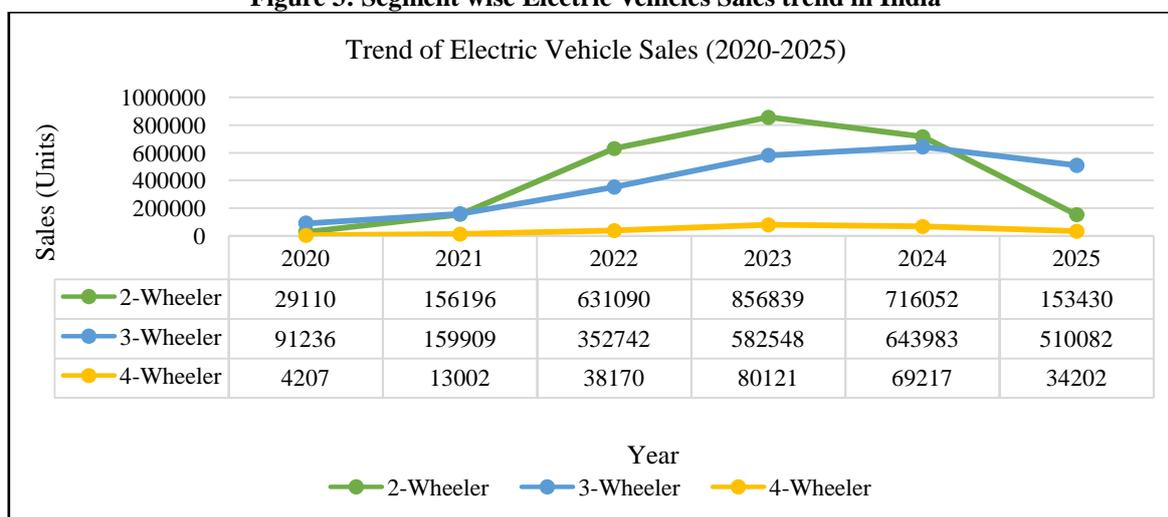
Figure:2 EV Penetration Rate- Global & India (2016-2024)



Source: IEA Global EV Data Explorer, 2025

Electric vehicle penetration shows that a continuous upward movement at both India and global levels. Initial penetration levels were low and increased slowly in the early years. A short decline is visible around 2020. After that penetration improved significantly. Strong policy support and infrastructure development encouraged adoption. Global penetration is higher due to mature ecosystems while India shows rapid progress in recent years.

Figure 3: Segment wise Electric Vehicles Sales trend in India



Source: Clean Mobility Shift-EV Vahan Dashboard retrieved from, (<https://cleanmobilityshift.com/ev-dashboard/>) on 12 January 2026

The figure 3 shows segment wise trends in electric vehicles in India from 2020 to 2025. Sales of electric vehicles of two wheelers increased sharply from 2020 and reached a peak in 2023 which shows strong consumer adoption supported by policy incentives and lower operating cost. After 2023 a decline is visible which may be linked to market saturation or policy changes. Electric three wheelers show a steady and consistent rise up to 2024 indicating their growing use in commercial and shared transport. Electric four wheelers' sales remain comparatively low throughout the period show gradual growth till 2023 which reflects increasing awareness and improving charging infrastructure. Overall, the figure highlights that two and three

wheelers are the main drivers of the electric vehicle’s growth in India while four wheelers are still in a developing stage.

VI. Market Share of Electric Vehicle manufacturers in India

To promote green mobility in India, several new entrants have entered the electric vehicle market. Ola, TVS Motor and Bajaj Auto are leading the two-wheeler segment, while Mahindra Last Mile Mobility dominate the electric three wheelers (Passengers) sector. Tata Motors also maintains a strong position in the four-wheeler segment.

Table 1 shows the market share of India’s top five electric two-wheeler manufacturers in financial year 2025 compared to financial year 2024. Ola electric remained the market leader but saw a decline in its share, reflecting increasing competition.

Figure:4 Player-wise Sales Share (%) of E2W in India



Source: JMK Research and Analytics, 2025

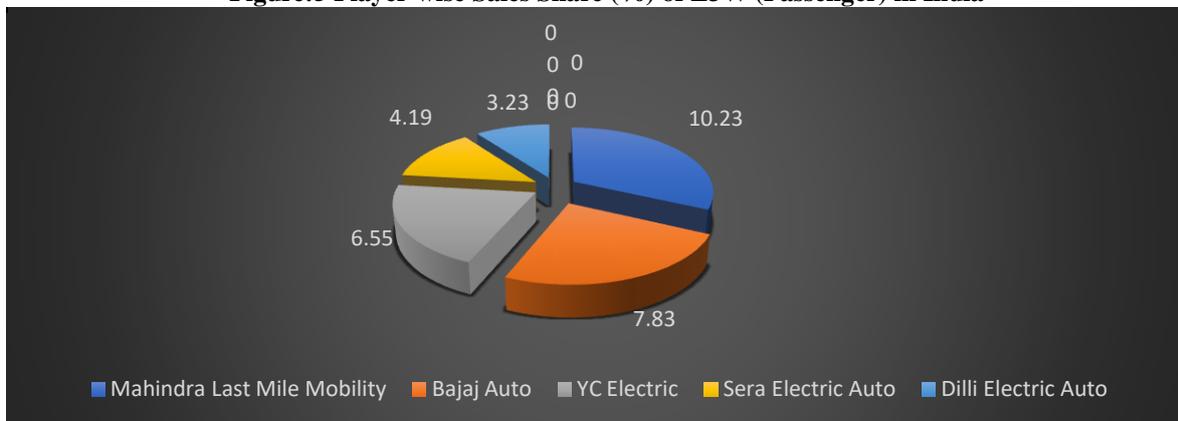
Table:1 Top Five E2W Key Player in FY 2025

Company	Market share (%) in FY 2024	Market share (%) in FY 2025	Change in Market Share (%)
Ola Electric	34.51	29.76	-4.74
TVS Motor	19.82	20.84	+1.01
Bajaj Auto	11.15	19.73	+8.58
Ather Energy	11.74	11.6	-0.14
Hero Motocorp	1.87	4.2	+2.33

Source: JMK Research and Analytics, 2025

TVS Motor’s market share increased marginally, reflecting its steady progress. Bajaj Auto recorded the highest growth, reflecting its strong expansion in the electric segment. Ather Energy’s share declined slightly, while hero Motocorp showed significant improvement, reflecting its growing market presence.

Figure:5 Player-wise Sales Share (%) of E3W (Passenger) in India



Source: JMK Research and Analytics, 2025

Figure 5 shows a relatively concentrated market structure, with Mahindra Last Mile Mobility holding a dominant share. Other manufacturers such as Bajaj Auto and YC Electric, hold moderate shares, while several small players collectively contribute to the remaining market.

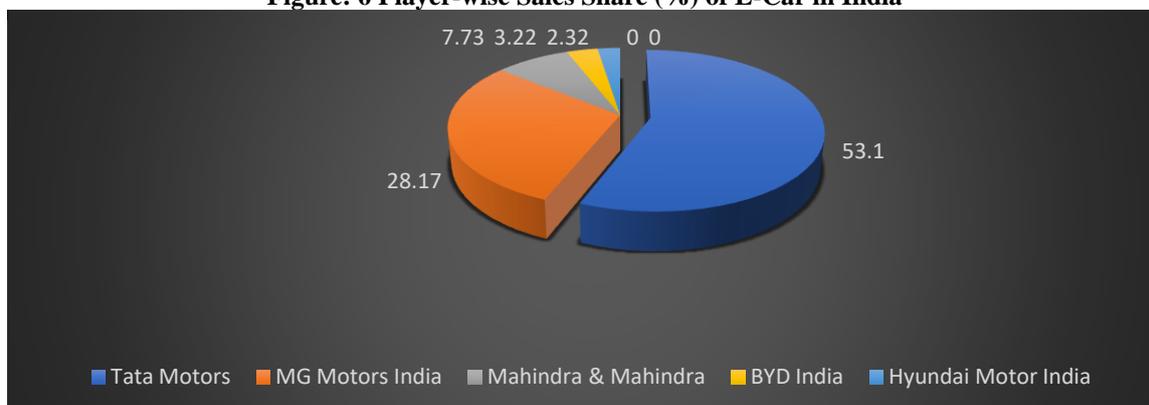
Table:2 Top Five E3W (Passenger) Key Player in FY 2025

Company	Market share (%) in FY 2024	Market share (%) in FY 2025	Change (%)
Mahindra Last Mile Mobility	9.03	10.23	+ 1.20
Bajaj Auto	1.76	7.83	+ 6.07
YC Electric	7.13	6.55	- 0.58
Saera Electric	5.08	4.19	-0.89
Dilli Electric	4.06	3.23	-0.83

Source: JMK Research and Analytics, 2025

Table 2 shows the market share of India’s top five passenger electric three-wheeler manufacturers in financial year 2025. Mahindra Last Mile Mobility maintained its leadership position with a 10.23 percent market share in financial year 2025 and recorded growth. Bajaj Auto showed the fastest growth, with its market share increasingly significantly compared to financial year 2024. YC Electric saw a slight weakening in its market position. Saera Electric and Dilli electric also show market share declines, reflecting increased competition in the segment. Overall, the data suggests that some major companies are expanding while others are facing increasing pressure.

Figure: 6 Player-wise Sales Share (%) of E-Car in India



Source: JMK Research and Analytics, 2025

Figure 6 shows the dominance of Tata Motors (53.1 percent) in the electric four wheelers segment. MG Motor India follows, with approximately 28.17 percent market share in the electric four wheelers segment. The strong position of Tata Motors primarily driven by early market entry, product reliability, competitive pricing, and alignment with government schemes. The concentration of market share in this segment suggests that affordability, charging infrastructure availability, and consumer confidence remain key factors influencing electric car adoption in India.

Table:3 Top 5 E4W (E-Car) Key Player in FY 2025

Company	Market share (%) in FY 2024	Market share (%) in FY 2025	Change (%)
Tata Motors	69.0	53.10	-15.9
MG Motor	13.7	28.17	+ 14.43
Mahindra	6.9	7.73	+0.83
BYD India	2.2	3.22	+1.00
Hyundai	2.0	2.32	+0.33

Source: JMK Research and Analytics, 2025

The comparative analysis shown in table 3 reveals significantly changes in the Indian electric car market between financial year 2024 and 2025. Tata motors maintained its market leadership in both years, although its market share declined in FY 2025. In contrast, MG Motor saw significant growth in FY 2025 compared to FY 2024, strengthening its competitive position. Mahindra saw a slight increase in market share, indicating stable performance. BYD India and Hyundai also recorded positive growth in FY 2025 compared to FY 2024. Overall, the table indicates that market leadership remains, but competition is becoming increasingly intense.

The electric vehicle market in India across two, three and four wheelers show a clear linkage with government policies. Incentives such as subsidies and tax benefits have strongly supported the growth of two wheelers, leading to a competitive market with many manufacturers. In the three wheelers segment, policy support for commercial use has encouraged fleet adoption and resulted in dominance by a few major players. However, the electric four wheelers market remains concentrated due to high upfront costs and limited charging infrastructure despite policy support.

VII. Conclusion

This study concludes that electric vehicle sales and market penetration are growing rapidly globally. In comparison, the electric vehicle market in India is still in its developing stage. Electric two-wheelers and three-wheelers continue to dominate the Indian market, reflecting their affordable cost and practical use. In contrast, electric cars have experienced slow growth, primarily due to high prices and limited charging infrastructure. A comparative analysis of financial years 2024 and 2025 also reveals shifts in market share among top five companies across various segments, leading to increased competition. Overall, the study indicates that there is significant potential for expansion of the electric vehicle market in India through policy support and infrastructure development.

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