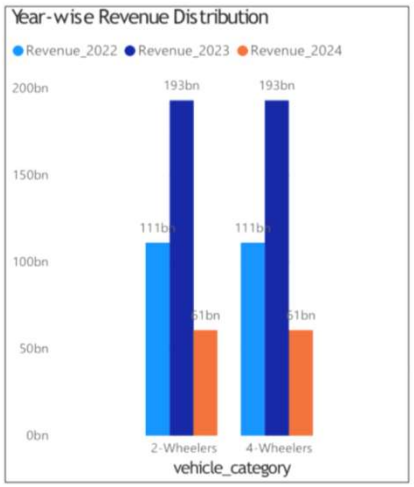
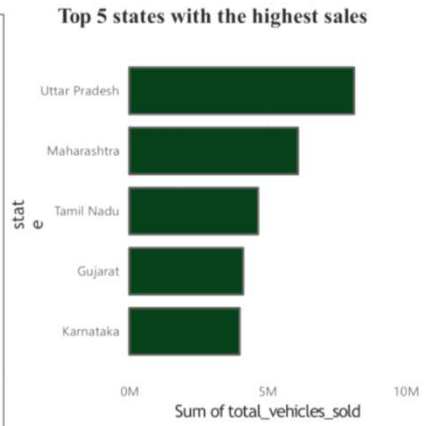
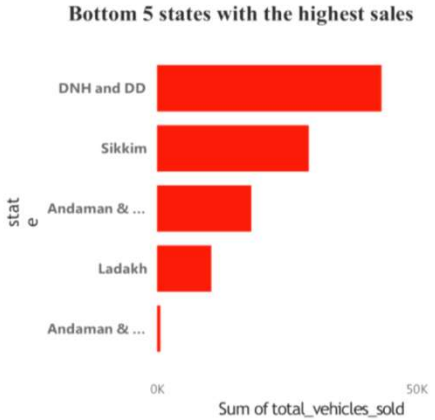
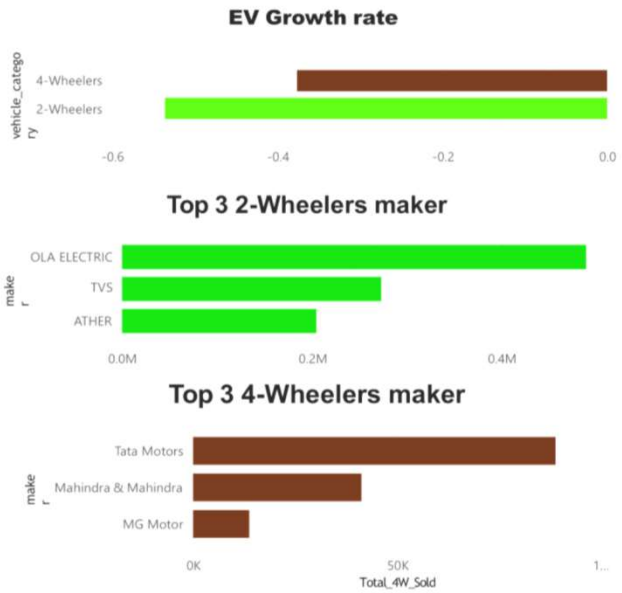
Provide Insights to an Automotive company on Electric vehicles launch in India

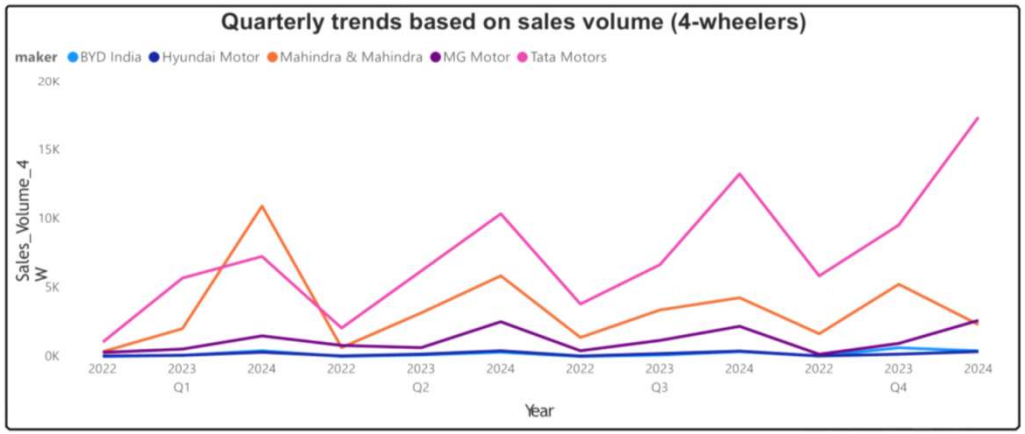
As one of the leading automotive giants from the USA, AtliQ Motors has decided to make a bold move by entering the rapidly growing Indian electric vehicle (EV) market. With a strong reputation for innovation and sustainability, AtliQ is poised to leverage its expertise in EV technology to capture a significant share of this promising market. This detailed analysis will examine the current landscape of the Indian EV/Hybrid sector, the key drivers and trends, the competitive landscape, and the regulatory environment - all with the aim of guiding AtliQ's strategic decisions as it embarks on this exciting new venture.

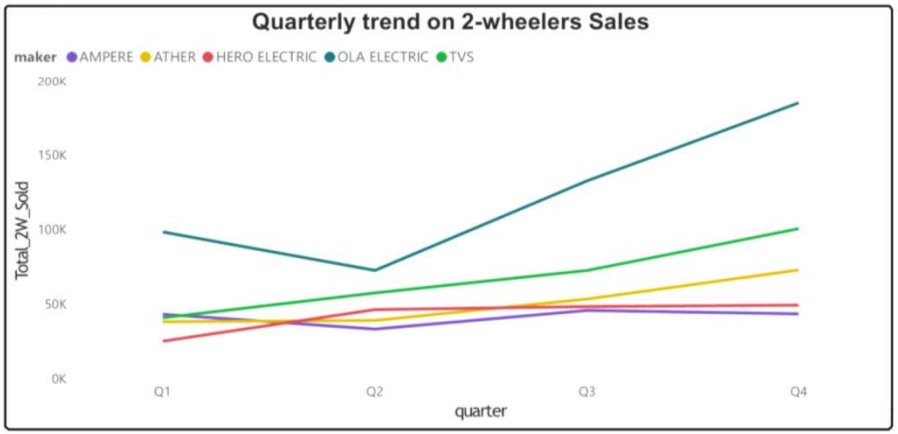

Year-wise Revenue Distribution
Revenue_2022
Revenue_2023
Revenue_2024
200bn
150bn
100bn
50bn
0bn
193bn
193bn
111bn
111bn
61bn
61bn
2-Wheelers
4-Wheelers
vehicle_category


Top 5 states with the highest sales
Uttar Pradesh
Maharashtra
Tamil Nadu
Gujarat
Karnataka
state
0M
5M
10M
Sum of total_vehicles_sold


Bottom 5 states with the highest sales
DNH and DD
Sikkim
Andaman & ...
Ladakh
Andaman & ...
state
0K
50K
Sum of total_vehicles_sold


EV Growth rate
4-Wheelers
2-Wheelers
vehicle_category
-0.6
-0.4
-0.2
0.0
Top 3 2-Wheelers maker
OLA ELECTRIC
TVS
ATHER
maker
0.0M
0.2M
0.4M
Top 3 4-Wheelers maker
Tata Motors
Mahindra & Mahindra
MG Motor
maker
0K
50K
Total_4W_Sold


Quarterly trends based on sales volume (4-wheelers)
maker
BYD India
Hyundai Motor
Mahindra & Mahindra
MG Motor
Tata Motors
20K
15K
10K
5K
0K
Sales_Volume_4W
2022
2023
2024
Q1
Q2
Q3
Q4
Year


Quarterly trend on 2-wheelers Sales
maker
AMPERE
ATHER
HERO ELECTRIC
OLA ELECTRIC
TVS
200K
150K
100K
50K
0K
Total_2W_Sold
Q1
Q2
Q3
Q4
quarter

Overview of the Indian EV/Hybrid Market

Market Size and Growth

The Indian EV/Hybrid market has experienced exponential growth in recent years, with sales rising from just over 100,000 units in 2016 to nearly 400,000 units in 2021. This growth is driven by a combination of favorable government policies, increasing consumer awareness, and technological advancements in battery and charging infrastructure.

Segment Breakdown

The market is dominated by two-wheelers, which account for over 80% of total EV sales in India. The passenger vehicle segment, which includes cars and SUVs, makes up around 10% of the market, while the remaining 10% is divided between three-wheelers and commercial vehicles.

Regional Trends

The EV adoption rates vary significantly across different states in India, with some regions like Delhi, Uttar Pradesh, and Maharashtra leading the charge, while others lag behind. This uneven distribution presents both challenges and opportunities for AtliQ as it seeks to establish a strong presence in the country.

Key Drivers and Trends in the Indian EV Sector

1 Government Incentives and Policies

The Indian government has introduced a range of incentives and policies to promote the adoption of EVs, including subsidies, tax benefits, and the development of a robust charging infrastructure. These initiatives have been instrumental in driving the growth of the EV market.

2 Declining Battery Costs

Advancements in battery technology and increased production have led to a significant reduction in the cost of EV batteries, making these vehicles more affordable for Indian consumers. This trend is expected to continue, further boosting the market's growth.

3 Rising Environmental Awareness

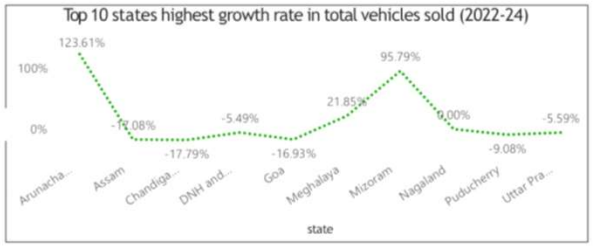
Concerns over air pollution and the need for sustainable mobility solutions have increased consumer interest in EVs, particularly in urban areas where the impact of emissions is most pronounced. This shift in consumer attitudes is a key driver of the EV market's expansion.

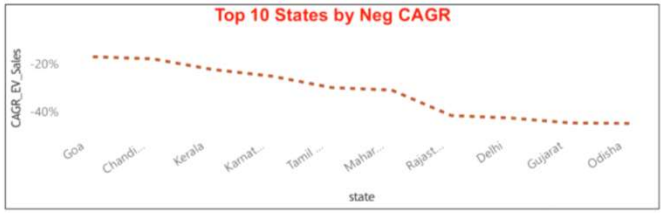
4 Technological Innovations

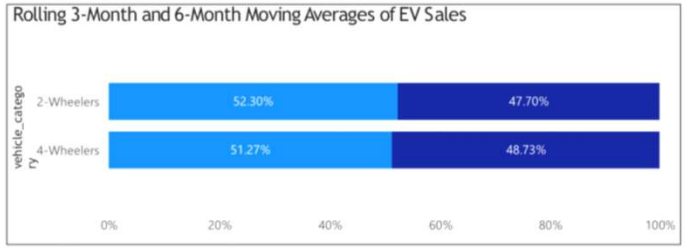
Continuous improvements in range, charging speed, and overall performance of EVs have made them more appealing to a wider range of consumers. As these technological advancements continue, the EV market in India is poised for even greater growth.

Top 5 makers from 2022 to 2024 ((CAGR) in 4-wheeler)

maker	Total_4W_ Sold	CAGR_4W_Top5
BYD India	2419	10.26%
Hyundai Motor	2076	-13.04%
Mahindra & Mahindra	41193	-52.38%
MG Motor	13753	2.74%
Tata Motors	88935	-15.57%
Total	**148376**	**-21.96%**





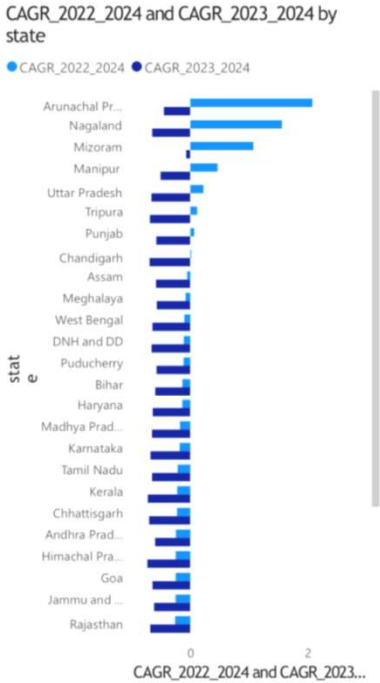


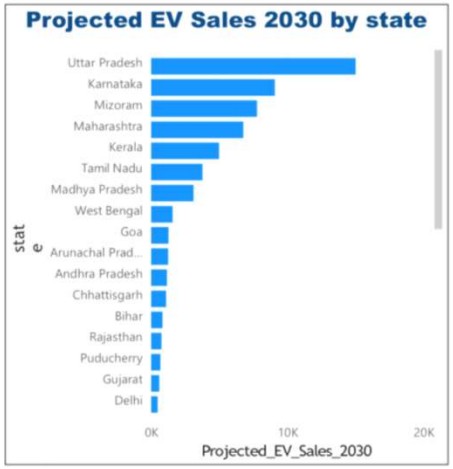
Total_EV_Sales_Delhi

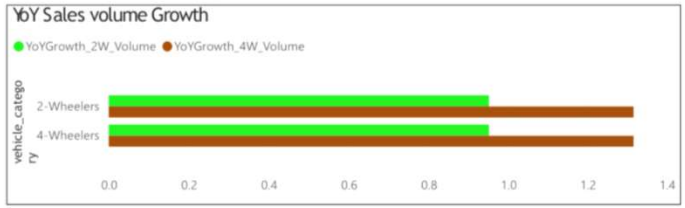
13K

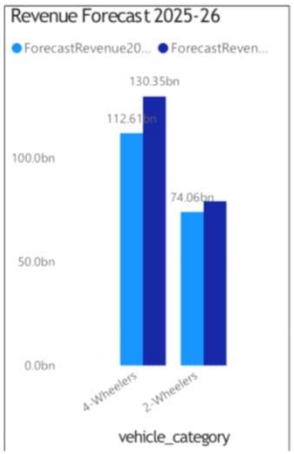
Total_EV_Sales_Karnataka

51K









Total_EV sold	Total Vehicles Sold	Avg_Penetration_Rate	Avg_Total_Vehicles
2066111	57220252	2.22	23,402.97

Correlation between EV Penetration Rates and Total Vehicles Sold

Correlation	Covariance	Variance_Penetration	Variance_Vehicles
0.09	79.45M	226.83K	3,595.06bn

Competitive Landscape: Major EV Players in India

Domestic Manufacturers

India's EV market is dominated by homegrown brands such as Tata Motors, Mahindra & Mahindra, and Ather Energy. These companies have been at the forefront of the EV revolution in the country, offering a range of models catered to the diverse needs of Indian consumers.

International Brands

Global automotive giants like Hyundai, Kia, and MG Motor have also made significant inroads into the Indian EV market, leveraging their expertise and technological capabilities to challenge the dominance of domestic players. These companies offer premium and technologically advanced EV models to cater to the growing demand for high-end electric vehicles.

Emerging Startups

The Indian EV landscape is also witnessing the rise of several innovative startups, such as Ola Electric, Revolt Intellicorp, and Okinawa Autotech. These companies are disrupting the market with their focus on affordability, design, and user experience, making EVs more accessible to a wider range of consumers.


EV sales by month for the years 2022 to 2024
Total_EV_Sales_By_Month
Month
January
February
March
April
May
June
July
August
Septem...
October
Novem...
Decem...
Why Peak in March?
Increase
Decrease
Total
Other
Total_EV_Sales_By_Month
Month
Why Low in June?
Increase
Decrease
Total
Other
Month
ForecastRevenue2025 by maker
ForecastRevenue2025
maker
BEING
JITENDRA
PURE EV
BATTRE ELECTRIC
BGAUSS
KINETIC GREEN
AMPERE
ATHER
BAJAJ
HERO ELECTRIC
OKAYA EV
OKINAWA
OLA ELECTRIC
OTHERS
REVOLT
TVS
BMW India
BYD India
Hyundai Motor
KIA Motors
Mahindra & Mah
Mercedes - Benz
MG Motor
PCA Automobiles
Tata Motors
Volvo Auto India
Correlation between Ev sold state and Penetration rate
state
Delhi
Gujarat
Karnataka
Kerala
Madhya Pradesh
Maharashtra
Odisha
Rajasthan
Tamil Nadu
Uttar Pradesh
Total Vehicles Sold
EV_Penetration_Rate
Projected Revenue Forecast 2025-26 of Top 10 highest EV sold state
ForecastRevenue2025
ForecastRevenue2026
36.73bn
34.52bn
31.91bn
27.64bn
17.44bn
15.63bn
17.79bn
15.53bn
12.90bn
11.53bn
12.33bn
9.61bn
5.17bn
5.00bn
4.77bn
1.97bn
Maharashtra
Karnataka
Gujarat
Tamil Nadu
Rajasthan
Uttar Pradesh
Madhya Pradesh
Andhra Pradesh
West Bengal
Bihar
state

Regulatory Environment and Government Initiatives

FAME Scheme

The Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles (FAME) scheme, introduced by the Indian government, offers subsidies and incentives to promote the adoption of EVs and build a sustainable EV ecosystem in the country.

1

EV Charging Infrastructure

The government has set ambitious targets for the deployment of public and private charging infrastructure across the country, ensuring that the growing EV fleet has access to a reliable and extensive network of charging stations.

3

2

Production Linked Incentive

The government's Production Linked Incentive (PLI) scheme provides financial incentives to manufacturers, encouraging them to invest in domestic production and strengthening the EV supply chain in India.

Charging Infrastructure and Battery Technology Advancements

Battery Technology

The development of advanced lithium-ion batteries with improved energy density, charging times, and overall performance has been a crucial factor in the growth of the Indian EV market. Emerging technologies, such as solid-state batteries, are expected to further enhance the capabilities of EVs and drive wider adoption.

Charging Infrastructure

The expansion of public and private charging networks across India is crucial for the widespread adoption of EVs. The government and private players are collaborating to establish a comprehensive charging infrastructure, addressing concerns over range anxiety and enabling seamless long-distance travel for EV owners.

Opportunities and Challenges for AtliQ Motors in India

Opportunities

India's rapidly growing EV market, supported by favorable government policies and rising consumer interest, presents a significant opportunity for AtliQ Motors to establish a strong foothold and capitalize on the growing demand for sustainable mobility solutions.

Challenges

AtliQ may face challenges in adapting its EV models to the unique preferences and requirements of the Indian market, as well as navigating the complex regulatory environment and competing with established domestic and international players in the sector.

Partnerships and Collaborations

Forging strategic partnerships with local manufacturers, technology providers, and charging infrastructure companies could be a key to AtliQ's success in the Indian market, allowing it to leverage the expertise and insights of its partners.

Localization and Customization

Tailoring its EV models and services to the specific needs of Indian consumers, such as adjusting for local driving conditions, price points, and personal preferences, will be crucial for AtliQ to gain a competitive edge in the market.