

EV Market Segmentation

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GitHub:https://github.com/MalayVyas/EV_Market

1. Introduction

- ❖ Global Collaborations: Indian automotive companies are forging partnerships with international firms to tap into cutting-edge EV technology and expertise. Such collaborations are accelerating the development of advanced electric vehicles with a global perspective.
- ❖ Economic Impact: The growing EV industry is not only contributing to a cleaner environment but also generating employment opportunities. The manufacturing of EV components, battery assembly, and research and development activities are creating jobs, and boosting the country's economy.

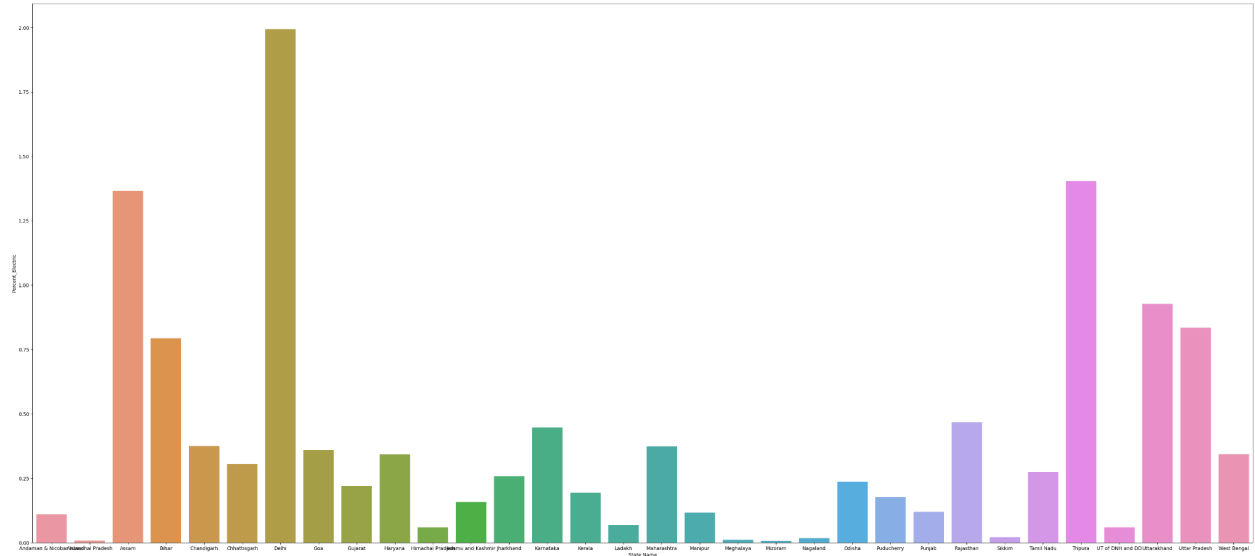
2. Market Analysis

- The Indian electric vehicle (EV) market is one of the fastest-growing in the world. It is expected to grow at a compound annual growth rate (CAGR) of 94.4% from 2021 to 2030.
- Two-wheelers currently dominate the market, but there is growing demand for electric cars and buses.
- The Indian government is offering several incentives to promote the adoption of EVs, including tax breaks, subsidies, and access to restricted lanes.
- The government has set a target of achieving 30% electrification of the country's vehicle fleet by 2030.
- The EV market in India is expected to be worth around USD 152.21 billion by 2030.

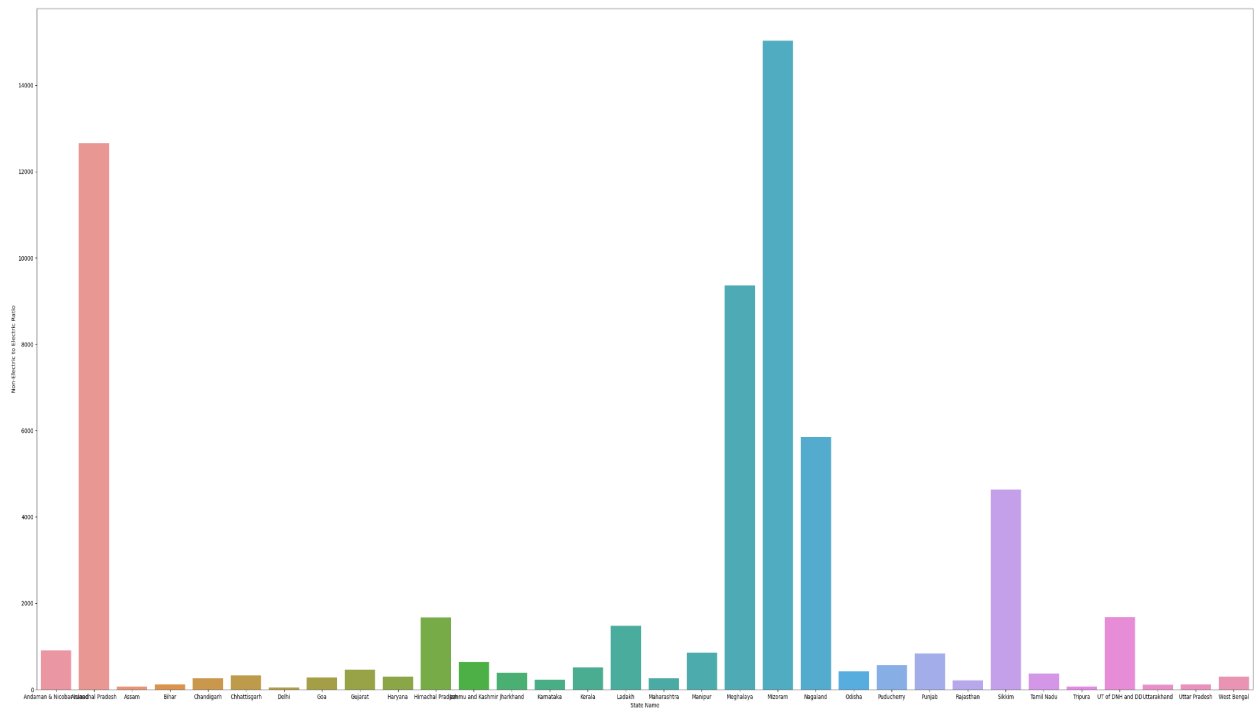
- In 2022, the Indian EV market size was estimated at USD 4.15 billion.
- The two-wheeler segment accounted for the largest share of the market, with 96% of the sales.
- The car segment accounted for 3% of the market, while the bus segment accounted for 1%.
- The government of India has offered several incentives for the purchase of electric vehicles, including a tax rebate of up to INR 1.5 lakh (USD 19,000) for cars and INR 50,000 (USD 6400) for two-wheelers.
- The government has also announced a production-linked incentive (PLI) scheme for manufacturing electric vehicles and components.
- The PLI scheme is expected to attract investments of around INR 45 billion (USD 570 million) and create over 75,000 jobs in the EV sector.
- Promising Trajectory: The electric vehicle market in India is on a promising trajectory, with robust government support, increasing consumer awareness, and a growing infrastructure. This sector is poised for substantial growth in the coming years.
- Environmental and Economic Benefits: The adoption of EVs in India aligns with the nation's commitment to reducing carbon emissions and reliance on fossil fuels. Additionally, the EV sector is creating economic opportunities through job creation and domestic manufacturing.
- Challenges Ahead: Despite its potential, the Indian EV market faces challenges such as affordability, charging infrastructure expansion, and addressing consumer concerns like range anxiety. These issues require ongoing attention and innovative solutions

Demographics:

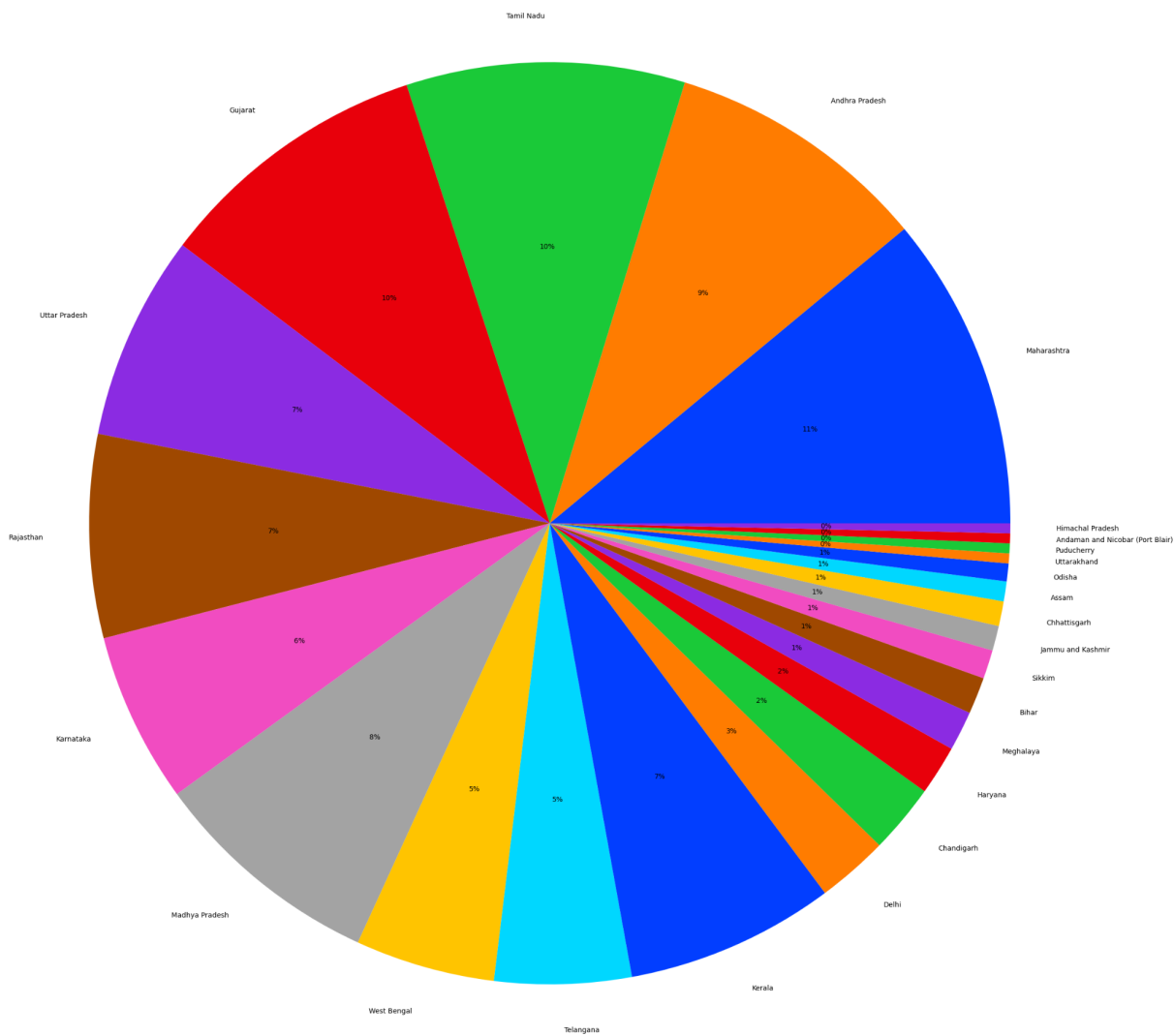
Total Market Share of Electric Vehicles[State Wise]:



Biggest Untouched Markets:



Charging Stations in India:



Conclusions:

- **The Indian EV market is growing rapidly. The market size was estimated to be USD 1.45 billion in 2021 and is projected to reach USD 113.99 billion by 2029, growing at a CAGR of 66.52% during the forecast period.**
- **The two-wheeler segment is the leading segment in the Indian EV market. It accounted for 83% of the market share in 2021. The three-wheeler segment is the second-largest segment, followed by the four-wheeler segment.**
- **The government of India has been taking several initiatives to promote the adoption of electric vehicles. These initiatives include providing subsidies, tax breaks, and setting up charging infrastructure.**
- **The major challenges for the Indian EV market are the high upfront cost of EVs, the lack of charging infrastructure, and the range anxiety of consumers.**
- **The Indian EV market is expected to grow significantly in the coming years. The government's initiatives, the increasing awareness about the environmental benefits of EVs, and the declining cost of batteries are expected to drive the growth of the market.**
- **In 2021, India sold over 300,000 electric vehicles. The state of Uttar Pradesh is the leading market for electric vehicles in India.**