



# Consumer Perception and Adoption Trends Towards Electric Vehicles in Coimbatore District: A Primary Study

**Illakkiya R**

Sri Krishna adithya college of arts and science

## ABSTRACT

This study examines consumer perceptions, preferences, and adoption trends regarding electric vehicles (EVs) in Coimbatore district. It highlights awareness levels, influencing factors, usage patterns, and satisfaction among EV users. Findings reveal that while environmental consciousness and rising fuel costs are propelling interest in EVs, concerns remain over infrastructure, battery longevity, and affordability. The study suggests key policy and market interventions to enhance EV adoption.

**Keywords:** Electric vehicles, consumer perception, charging infrastructure, battery life, sustainability, Coimbatore

## 1. Introduction

Electric vehicles (EVs) are gaining traction as sustainable alternatives to traditional internal combustion engine (ICE) vehicles. Increasing environmental awareness, government incentives, and technological advancements have fostered a positive shift toward EV adoption. In India, policy measures such as the FAME scheme and the National Electric Mobility Mission Plan (NEMMP 2020) have laid a foundation for this transition. However, consumer adoption still faces barriers including infrastructure inadequacy, high initial costs, and limited awareness.

## 2. Objectives

- To identify the preferred types of electric vehicles among respondents.
- To assess consumer satisfaction with electric vehicles.
- To evaluate consumer experience and challenges in using EVs.
- To examine the growth potential and future intentions for EV adoption.

## 3. Research Methodology

This study adopts a descriptive research design using a structured questionnaire. The sample comprises 126 respondents from urban and semi-urban areas of Coimbatore, aged between 18 and 60 years.

### Data Sources:

- Primary Data: Collected through a questionnaire survey.
- Secondary Data: Drawn from academic literature, government reports, and industry sources.

Tool Used: Simple percentage analysis was employed to interpret the responses.

## 4. Analysis and Interpretation

- Majority of respondents were aged 18–24 (39.2%) and female (65.1%).
- 81.6% currently own vehicles; 50% prefer electric bikes/scooters over cars.
- 42.9% were somewhat familiar with EVs; most learned about EVs through friends/family (42.1%).
- 41.3% cited limited charging infrastructure as the primary concern.
- 39.7% rated their EV experience as good; 66.9% are willing to repurchase an EV.
- 49.2% found charging stations sufficient; 42.9% found charging somewhat convenient.

---

## 5. Findings

- Younger consumers are the dominant demographic showing interest in EVs.
- Word-of-mouth and digital media are key awareness drivers.
- Limited infrastructure and high upfront costs remain critical challenges.
- Despite limitations, a majority of users express willingness to continue with EVs.

---

## 6. Suggestions

- Expand public and home charging infrastructure.
- Offer financing schemes and affordability incentives.
- Promote certified pre-owned EV programs.
- Enhance awareness through testimonials and social engagement.
- Provide loyalty and trade-in benefits to encourage repeat purchases.

---

## 7. Conclusion

The study concludes that although EVs are increasingly perceived as a viable future mode of transport, their widespread adoption is impeded by infrastructure gaps and consumer hesitancy. A collaborative approach involving policymakers, manufacturers, and consumers is crucial to realize the full potential of electric mobility in India.