



# An Empirical Study on Consumer Perception and Satisfaction Towards TVS And OLA Electric Scooter

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## Abstract

The Indian automobile industry has experienced rapid transformation with the increasing adoption of electric vehicles, particularly electric scooters. Rising fuel prices, environmental concerns, government incentives, and technological advancements have encouraged consumers to shift from conventional petrol scooters to electric mobility solutions. Among the leading brands in the Indian electric two-wheeler market, TVS and OLA Electric have emerged as significant competitors by offering innovative features, affordability, and sustainable transportation alternatives. This study examines consumer perception and satisfaction towards TVS and OLA electric scooters, focusing on factors such as performance, pricing, battery efficiency, charging infrastructure, design, service quality, and brand trust.

The research adopts a descriptive and analytical approach using both primary and secondary data. Primary data were collected from 150 respondents through structured questionnaires distributed among electric scooter users and potential buyers in urban and semi-urban regions. Secondary data were gathered from journals, websites, company reports, and automobile market studies. Statistical tools such as percentage analysis, weighted average method, chi-square analysis, and correlation analysis were used to interpret the collected data.

The findings reveal that consumers are increasingly attracted to electric scooters because of lower operating costs, environmental benefits, and advanced digital features. TVS is perceived as more reliable in terms of service network and trust, while OLA Electric is recognized for its technological innovation, stylish design, and smart features. However, concerns regarding charging infrastructure, battery life, and after-sales service continue to influence customer satisfaction levels. The study concludes that both companies possess strong growth potential in the Indian electric vehicle market, but continuous improvement in customer support, charging accessibility, and product reliability is necessary to maintain consumer confidence and satisfaction.

**Keywords:** Electric Vehicles, Consumer Perception, Customer Satisfaction, TVS Electric Scooter, OLA Electric, Sustainable Transportation, EV Market.



## 1.1 Introduction to Electric Vehicles

Electric vehicles have become one of the most significant technological innovations in the global transportation sector. Increasing environmental pollution, depletion of fossil fuels, and rising fuel prices have created the need for alternative transportation systems that are eco-friendly and economically sustainable. Electric vehicles, particularly electric scooters, have emerged as practical solutions for urban mobility because of their low running costs, reduced carbon emissions, and ease of operation.

India has witnessed substantial growth in the electric two-wheeler segment during the last decade. Government initiatives such as the Faster Adoption and Manufacturing of Electric Vehicles (FAME) scheme, state-level subsidies, tax incentives, and awareness regarding climate change have encouraged consumers to consider electric scooters as an alternative to traditional petrol-powered vehicles. Technological advancements in lithium-ion batteries, charging systems, and smart mobility features have further accelerated market demand.

Among the major companies operating in the Indian electric scooter market, TVS and OLA Electric have gained remarkable consumer attention. TVS Motor Company, a trusted automobile manufacturer with decades of experience, launched electric scooters focusing on reliability, quality, and extensive service support. On the other hand, OLA Electric entered the market with advanced technology, futuristic design, and digital integration aimed at attracting young consumers.

Consumer perception plays an essential role in determining the success of electric scooters. Perception refers to the way consumers evaluate product quality, price, features, reliability, and overall value. Similarly, customer satisfaction reflects the degree to which consumers feel their expectations are fulfilled after purchasing and using the product. Understanding these factors is highly important for manufacturers, marketers, policymakers, and investors.

This study attempts to analyze consumer perception and satisfaction towards TVS and OLA electric scooters. It evaluates the major factors influencing purchase decisions and customer experiences. The research also identifies the strengths and weaknesses of both brands from the consumer perspective.

## 1.2 Background of the Study

The global automotive industry is undergoing a major transformation towards electric mobility. Countries across the world are promoting electric vehicles to reduce greenhouse gas emissions and dependence on imported crude oil. India, being one of the largest automobile markets, has recognized electric mobility as an important step toward sustainable development.

Electric scooters have become popular because they are affordable, easy to maintain, and suitable for short-distance urban commuting. Compared to conventional scooters, electric scooters offer lower maintenance costs, minimal noise pollution, and environmentally friendly transportation.

TVS launched its electric scooter segment with a strong emphasis on reliability and performance. The company utilized its established dealer and service network to build consumer trust. OLA Electric entered the market aggressively with innovative marketing strategies, online booking systems, smart connectivity features, and stylish product design.

Despite increasing demand, consumers still face several challenges while adopting electric scooters. Limited charging infrastructure, concerns regarding battery durability, resale value, and service quality influence consumer decisions. Therefore, analyzing customer perception and satisfaction becomes important to understand the future growth potential of electric mobility.



### 1.3 Need for the Study

The need for this study arises because the electric scooter market in India is expanding rapidly, and consumer expectations are continuously changing. Understanding customer perception and satisfaction helps manufacturers improve product quality, service efficiency, and marketing strategies.

This study is important because:

1. It helps identify the factors influencing consumer preference for electric scooters.
2. It evaluates the level of customer satisfaction towards TVS and OLA electric scooters.
3. It highlights consumer concerns regarding charging infrastructure and battery performance.
4. It provides suggestions for improving customer experience and market competitiveness.
5. It contributes to academic research related to consumer behavior and electric mobility.

### 1.4 Statement of the Problem

Electric scooters are becoming increasingly popular in India, but consumers still face uncertainty regarding product performance, charging infrastructure, battery life, and after-sales service. TVS and OLA Electric have emerged as major competitors, yet consumer opinions vary significantly based on personal experiences, brand image, and product expectations.

The problem addressed in this study is to understand how consumers perceive TVS and OLA electric scooters and to evaluate their satisfaction levels regarding product quality, pricing, technology, service support, and overall performance.

### 1.5 Objectives of the Study

#### Primary Objective

To analyze consumer perception and satisfaction towards TVS and OLA electric scooters.

#### Secondary Objectives

1. To identify the factors influencing consumer purchase decisions.
2. To compare customer satisfaction levels between TVS and OLA electric scooters.
3. To examine consumer opinions regarding pricing, battery performance, and charging infrastructure.
4. To analyze the impact of brand image on consumer preference.
5. To provide suggestions for improving customer satisfaction.

### 1.6 Scope of the Study

The study focuses on consumers using or considering TVS and OLA electric scooters in selected urban and semi-urban areas. The research examines factors related to consumer perception, satisfaction, performance, service quality, and technological features.

The scope includes:

- Electric scooter users aged between 18 and 50 years.
- Analysis of consumer preferences and buying behavior.
- Comparison between TVS and OLA electric scooters.
- Evaluation of customer satisfaction and challenges faced.



## 1.7 Research Methodology

The study adopts a descriptive research design. Both primary and secondary data were used.

### Primary Data

Primary data were collected through structured questionnaires distributed among 150 respondents.

### Secondary Data

Secondary data were collected from:

- Research journals
- Company websites
- Government reports
- Automobile magazines
- News articles
- Industry reports

### Sampling Technique

Convenience sampling method was used.

### Sample Size

The sample size consisted of 150 respondents.

### Tools Used for Analysis

- Percentage Analysis
- Weighted Average Method
- Chi-Square Analysis
- Correlation Analysis
- Simple Tables and Graph Interpretation

## 1.8 Limitations of the Study

1. The study is limited to selected respondents.
2. Consumer opinions may change over time.
3. Time constraints restricted broader data collection.
4. Responses are based on personal experiences and perceptions.
5. Some respondents may not have complete technical knowledge regarding electric scooters.

## Chapter 2

### Industry Profile and Company Profile

#### 2.1 Indian Electric Vehicle Industry

The Indian electric vehicle industry has emerged as one of the fastest-growing sectors in the automobile market. Rising environmental concerns and increasing fuel prices have accelerated the shift toward electric mobility. Government initiatives and incentives have also played a crucial role in promoting electric vehicles.



The electric two-wheeler segment dominates the EV market because of affordability, convenience, and suitability for daily commuting. Consumers are gradually shifting towards electric scooters because they provide lower operational costs compared to petrol scooters.

Major players in the Indian electric scooter market include TVS, OLA Electric, Ather Energy, Bajaj, Hero Electric, and Okinawa. The competition among these companies has resulted in continuous innovation and improved product quality.

## 2.2 Growth of Electric Scooters in India

The electric scooter market has grown rapidly due to several factors:

- Rising petrol prices
- Government subsidies
- Environmental awareness
- Lower maintenance costs
- Technological advancements
- Increasing urbanization

Consumers prefer electric scooters because they are economical and environmentally friendly. The demand is particularly high among students, office employees, and delivery service workers.

## 2.3 Challenges in the Electric Vehicle Industry

Despite rapid growth, the industry faces several challenges:

1. Limited charging infrastructure
2. Battery replacement costs
3. Range anxiety
4. Lack of awareness in rural areas
5. Concerns regarding battery safety
6. Service network limitations

Addressing these challenges is essential for sustainable market growth.

## 2.4 Profile of TVS Motor Company

TVS Motor Company is one of India's leading automobile manufacturers. The company has built a strong reputation for quality, reliability, and customer service. TVS entered the electric scooter market with the launch of TVS iQube.

### Features of TVS iQube

- Smart connectivity features
- Good battery performance
- Comfortable riding experience
- Trusted brand image
- Extensive service network
- Reliable build quality

TVS focuses on practical mobility solutions and customer trust. The company benefits from its established dealership and after-sales service infrastructure.



## 2.5 Profile of OLA Electric

OLA Electric is one of the newest entrants in the electric mobility industry. The company gained popularity quickly through aggressive marketing, online booking systems, and technologically advanced scooters.

### Features of OLA Electric Scooters

- Futuristic design
- Advanced smart dashboard
- Voice command features
- Mobile app integration
- Multiple riding modes
- High-speed performance

OLA Electric mainly targets young consumers who prefer stylish and technology-oriented vehicles.

## 2.6 Comparative Analysis of TVS and OLA

Factors	TVS	OLA Electric
Brand Trust	High	Moderate
Technology	Moderate	High
Service Network	Strong	Developing
Design	Practical	Stylish
Battery Performance	Reliable	Competitive
Pricing	Moderate	Moderate to Premium
Customer Support	Better	Needs Improvement

## Chapter 3

### Review of Literature

Review of literature helps in understanding previous research studies related to electric vehicles, consumer behavior, and customer satisfaction. It provides theoretical support and identifies research gaps.

#### Aaker (1997)

Aaker explained the importance of brand personality in influencing consumer perception and purchasing decisions. Strong brand identity increases customer loyalty and trust.

#### Kotler and Keller (2016)

The authors emphasized that customer satisfaction depends on product quality, expectations, and post-purchase experience. Companies achieving high satisfaction levels develop long-term customer relationships.

#### Schivinski and Dabrowski (2016)

The study examined the impact of digital communication on consumer perception. Social media and online reviews significantly influence consumer decisions regarding technology products.

#### Kumar and Alok (2020)

The research highlighted that Indian consumers are becoming increasingly interested in electric vehicles because of environmental awareness and lower operational costs.



Singh and Mishra (2021)

The authors analyzed consumer attitudes toward electric scooters and found that battery life, charging infrastructure, and pricing strongly influence purchase decisions.

Sharma (2022)

The study revealed that customer satisfaction in the electric vehicle sector depends on service quality, battery performance, and availability of spare parts.

Rao and Reddy (2023)

This research indicated that young consumers prefer technologically advanced electric scooters with smart features and attractive design.

Research Gap

Although several studies have examined electric vehicles and consumer behavior, limited research specifically compares consumer perception and satisfaction towards TVS and OLA electric scooters. This study attempts to fill that gap by analyzing customer experiences and comparing both brands.

Chapter 4

Data Analysis and Interpretation

4.1 Introduction

This chapter presents the analysis and interpretation of data collected from 150 respondents. The data were analyzed using statistical tools such as percentage analysis, weighted average method, chi-square analysis, and correlation analysis.

4.2 Demographic Profile of Respondents

Table 4.1 Gender Distribution

Gender	Respondents	Percentage
Male	88	58.7%
Female	62	41.3%
Total	150	100%

Interpretation

The table shows that 58.7% of respondents are male and 41.3% are female. This indicates that male consumers currently dominate the electric scooter market.

4.3 Age Distribution

Age Group	Respondents	Percentage
18-25	54	36%
26-35	48	32%
36-45	30	20%
Above 45	18	12%



### Interpretation

Most respondents belong to the age group of 18-35 years, indicating that young consumers are more interested in electric scooters.

#### 4.4 Preference Between TVS and OLA

Brand	Respondents	Percentage
TVS	82	54.7%
OLA	68	45.3%

### Interpretation

The majority of respondents prefer TVS electric scooters because of reliability and service support.

#### 4.5 Factors Influencing Purchase Decision

Factors	Percentage
Price	22%
Battery Performance	28%
Brand Image	18%
Design and Features	20%
Service Quality	12%

### Interpretation

Battery performance is the most important factor influencing purchase decisions.

#### 4.6 Satisfaction Towards Battery Performance

Satisfaction Level	Respondents	Percentage
Highly Satisfied	36	24%
Satisfied	72	48%
Neutral	24	16%
Dissatisfied	12	8%
Highly Dissatisfied	6	4%

### Interpretation

Most respondents are satisfied with battery performance, but some consumers still express concerns regarding battery durability.

#### 4.7 Satisfaction Towards Charging Infrastructure

Opinion	Percentage
Excellent	12%
Good	28%
Average	36%
Poor	24%



## Interpretation

The findings indicate that charging infrastructure remains a major challenge for electric scooter users.

### 4.8 Weighted Average Analysis

#### Factors Influencing Consumer Satisfaction

Factors	Weighted Score	Rank
Battery Efficiency	4.3	I
Riding Comfort	4.1	II
Smart Features	3.9	III
Pricing	3.8	IV
Service Quality	3.5	V

## Interpretation

Battery efficiency and riding comfort are the most influential factors affecting customer satisfaction.

### 4.9 Chi-Square Analysis

#### Relationship Between Age and Brand Preference

##### *Hypothesis*

H0: There is no significant relationship between age and brand preference.

H1: There is a significant relationship between age and brand preference.

##### *Result*

The calculated chi-square value is greater than the table value at a 5% significance level. Therefore, the null hypothesis is rejected.

## Interpretation

There is a significant relationship between age and brand preference. Younger consumers tend to prefer OLA due to technological features, while older consumers prefer TVS because of reliability.

### 4.10 Correlation Analysis

#### Correlation Between Service Quality and Customer Satisfaction

Variables	Correlation Value
Service Quality and Customer Satisfaction	0.72

## Interpretation

There is a strong positive relationship between service quality and customer satisfaction.

### 4.11 Major Findings

1. Young consumers are the primary users of electric scooters.
2. TVS is preferred because of trust and better service support.
3. OLA is popular among youth because of advanced technology and stylish design.
4. Battery efficiency strongly influences purchase decisions.
5. Consumers are generally satisfied with riding comfort and smart features.



6. Charging infrastructure remains a major concern.
7. Service quality significantly affects customer satisfaction.
8. Environmental awareness encourages consumers to adopt electric scooters.
9. Rising fuel prices increase demand for electric mobility.
10. Consumers expect better charging accessibility and improved battery life.

## Chapter 5

### Findings, Suggestions and Conclusion

#### 5.1 Findings of the Study

The study reveals that the Indian electric scooter market is growing rapidly because of economic, environmental, and technological factors. Consumers are increasingly shifting toward electric mobility because of lower operational costs and eco-friendly transportation.

TVS has established a strong reputation among consumers because of reliability, practical design, and extensive service network. Customers perceive TVS electric scooters as trustworthy and suitable for long-term usage. The company's after-sales service and dealer support significantly contribute to customer satisfaction.

OLA Electric has successfully attracted young consumers through advanced technology, stylish appearance, and innovative features. Consumers appreciate smart dashboards, app connectivity, voice command systems, and high-speed performance. However, some users reported concerns regarding service response and product reliability.

Battery performance emerged as one of the most important factors affecting consumer perception and satisfaction. Customers expect longer battery life, faster charging, and reduced maintenance costs. Charging infrastructure remains a major issue, especially in semi-urban and rural areas.

The study also indicates that customer satisfaction is strongly related to service quality. Consumers prefer brands that provide reliable maintenance support and quick issue resolution. Positive customer experience increases brand loyalty and word-of-mouth promotion.

#### 5.2 Suggestions

Based on the findings, the following suggestions are provided:

1. Companies should improve charging infrastructure across urban and rural areas.
2. TVS and OLA should focus on battery durability and safety.
3. OLA Electric should strengthen its service network and customer support.
4. TVS should introduce more advanced technological features to attract younger consumers.
5. Companies should provide awareness programs regarding electric vehicle benefits.
6. Pricing strategies should remain affordable for middle-income consumers.
7. Government support and subsidies should continue to encourage electric vehicle adoption.
8. Manufacturers should focus on customer feedback and continuous product improvement.
9. Service centers should ensure timely maintenance and spare parts availability.
10. More research and development should be conducted to improve battery efficiency and reduce charging time.



### 5.3 Conclusion

The study concludes that consumer perception and satisfaction play a crucial role in the success of electric scooters in India. TVS and OLA Electric have emerged as important competitors in the electric mobility sector, each possessing unique strengths and market positioning.

TVS enjoys strong consumer trust because of reliability, quality, and service support. OLA Electric has gained popularity because of innovative technology, stylish design, and digital integration. While both companies have successfully contributed to the growth of electric mobility, challenges related to charging infrastructure, battery life, and service quality continue to affect customer satisfaction.

The future of electric scooters in India appears highly promising because of increasing environmental awareness, supportive government policies, and technological advancements. Consumers are gradually accepting electric vehicles as practical alternatives to petrol scooters. Companies that focus on product quality, customer support, technological innovation, and affordability will achieve long-term success in the competitive electric vehicle market.

Overall, the study highlights that customer satisfaction depends not only on product performance but also on service experience, reliability, and emotional trust toward the brand. Both TVS and OLA Electric must continuously improve their offerings to meet evolving consumer expectations and strengthen their position in the rapidly expanding electric mobility industry.

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