



AN INSIGHT INTO CUSTOMERS' BUYING PERSPECTIVES TOWARDS E-BIKE IN KAKINADA DISTRICT

BY

1.Dr.Nedunuri Manikya Jyothirmai

Assistant Professor, School of Management Studies, JNTUK, Kakinada

2Dr. K J Sumithha, 3 Ms. B. Katharine,

ABSTRACT

In today's increasingly competitive and environmentally conscious market, businesses are shifting their focus from customer satisfaction to customer delight. Marketers must align communication strategies with consumer perceptions to ensure long-term engagement and brand loyalty. With urban transportation evolving towards sustainable alternatives, e-bikes have emerged as a key solution. Understanding consumer perceptions regarding features, environmental impact, cost-effectiveness, charging infrastructure, and safety is essential for encouraging the adoption of electric vehicles (EVs).

This study investigates how these variables influence consumer purchase perspectives, with a specific focus on Bajaj Chetak e-bikes in the Kakinada district. Employing a quantitative, descriptive research design, the study identifies low operating costs as a primary motivator for purchase, while limited awareness and infrastructure challenges act as significant deterrents.

Keywords: Customer purchase behavior, brand image, consumer perceptions, electric vehicles, marketing strategy, Bajaj Chetak e-bike

INTRODUCTION

Marketing plays a pivotal role in driving business success by identifying, satisfying, and retaining customers. It integrates a range of strategies captured in the classic **4Ps of Marketing**—Product, Price, Place, and Promotion—which have evolved into **7Ps** with the inclusion of People, Process, and Physical Evidence to reflect modern-day complexity.

A key component in marketing success is **consumer perception**, which is shaped by personal experience, beliefs, cultural influences, and marketing communications. These perceptions influence purchase intentions, brand loyalty, and competitive positioning. When aligned with a brand's identity, positive consumer perceptions can significantly enhance sales and customer retention.

The electric vehicle (EV) market, particularly the two-wheeler segment, is gaining traction in response to environmental concerns and the need for sustainable urban mobility. Understanding the **perception drivers**—such as range, cost, charging convenience, and eco-friendliness—is vital to refining marketing and product strategies for increased e-bike adoption.

NEED FOR THE STUDY

Urban mobility is undergoing a transformative shift, with an increased demand for sustainable and eco-friendly transportation. E-bikes, especially in the two-wheeler segment, present a promising alternative. However, comprehensive data on consumer behavior, particularly in smaller cities like **Kakinada**, is limited.

This study addresses three key needs:

1. **Consumer Insights:** To design e-bikes and marketing strategies that resonate with consumer expectations and usage patterns.
2. **Policy Support:** To help policymakers craft incentives and develop EV infrastructure that encourages adoption.
3. **Urban Planning:** To assist planners in integrating EV-friendly infrastructure in city development initiatives.

By understanding local consumer attitudes, this study aims to support the broader goals of environmental sustainability and smarter urban transportation.

OBJECTIVES OF THE STUDY

- To evaluate the impact of product features, environmental benefits, and cost-effectiveness on consumer perceptions.
- To assess how factors such as **charging infrastructure, range limitations, and safety concerns** influence purchase decisions.
- To identify awareness and knowledge gaps that may affect the adoption of Bajaj Chetak e-bikes.

RESEARCH METHODOLOGY

- **Type:** Descriptive Research
- **Approach:** Quantitative
- **Geographic Focus:** Kakinada district
- **Instrument:** Structured questionnaire distributed to target respondents

REVIEW OF LITERATURE

A review of five recent and relevant studies provides context to the present research:

RESEARCH GAP

While multiple studies have analyzed consumer perception of EVs across Indian cities, none have addressed the **Kakinada** context. This study fills that gap by focusing on the **purchase behavior of consumers in a semi-urban district**, thereby offering localized insights to support EV policy and marketing initiatives in similar regions.

Statement of the Problem

Despite the rising popularity of electric two-wheelers as eco-friendly alternatives to conventional vehicles, there remains a limited understanding of how consumers perceive these vehicles and the factors influencing their purchase decisions. This gap is especially prominent in specific urban contexts like Kakinada. The lack of insights into consumer attitudes, preferences, and perceived barriers hinders manufacturers, marketers, and policymakers

from formulating effective strategies to increase adoption. This study seeks to bridge that gap by exploring the psychological, economic, and practical factors that shape customer decisions, with a focus on Bajaj Chetak E-Bikes.

Scope of the Study

This study is geographically confined to **Kakinada, Andhra Pradesh**, and focuses exclusively on Bajaj Chetak E-Bikes. The research includes a cross-section of customers with varying income levels, family sizes, and occupational backgrounds. However, the insights derived are specific to this region and may not be generalizable to broader populations.

Methodology for Sampling

- **Daily customer inquiries:** 20 per day
- **Study period:** 60 days
- **Estimated inquiries:** 1200
- **Response rate:** 90% (1080 customers)
- **Sample drawn:** 10% of potential respondents = **108 respondents**

The sample size was determined using a proportionate sampling method, balancing feasibility and statistical relevance.

Limitations of the Study

1. **Demographic Representation:** The sample may not fully reflect the demographic diversity of potential E-Bike users.
2. **Self-Reported Data:** Responses may be influenced by biases such as social desirability or misunderstanding.
3. **Geographic Limitation:** Findings are specific to Kakinada and may not hold in other urban or rural areas.
4. **External Influences:** Market dynamics, policy changes, or technological advancements not captured in the study could impact consumer opinions.
5. **Temporal Limitation:** Consumer perceptions can shift rapidly due to media, trends, or peer influence.

Analysis and Key Findings

Demographic Profile

- **Age:** Largest group was 38–47 (35%), followed by 28–37 (33%) and 18–27 (22%).
- **Income:** Most earn between ₹25,001–45,000 (56%), indicating a middle-income segment.
- **Family Size:** 52% have families with 3+ members.
- **Vehicle Use:** 64% consider E-bikes as a second vehicle for cost-effective commuting.

Key Purchase Drivers

1. **Lower Operating Costs & Fuel Savings (39%):** Top factor, especially for 28–47 age group. Less importance for younger (18–27) and older (58+) groups.
2. **Brand Reputation (23%):** Noted primarily by 38–47 age group; minimal concern among younger/older users.
3. **Environmental Impact:** Highly valued by 28–37 (88%), minimal impact among 47+ group—suggesting generational differences.

4. Range & Battery Life: Important for those commuting longer distances, especially in 28–47 group. Minimal concern for 18–27 age group.

5. Charging Infrastructure: Least cited, suggesting a lack of awareness. Still relevant to 28–47 segment.

Feature Preferences

- **Safety Features:** Crucial to 92% of respondents.
- **Design/Aesthetics:** Valued by 55%, especially among younger buyers.
- **After-Sales Service:** Important to 82%.
- **Speed/Acceleration:** Moderately important (42%), especially among urban commuters.
- **Government Subsidies:** Mixed views—34% say it's very important; 24% neutral.
- **Test Rides:** 80% consider them important before purchase.
- **Financing Options:** 81% consider them important; flexibility preferred.
- **Fast Charging:** 66% rate it highly; vital for daily commuters.
- **Real-Time Range Estimation:** Important to 61% of users.
- **EV Mode & Multiple Riding Modes:** Seen as useful by over 70%.

SUGGESTIONS/ Implications for Marketing Strategy

1. **Emphasize Economic Value:** Target 28–47 age group with messaging around fuel savings and operational costs.
2. **Promote Green Image:** Tailor campaigns to highlight environmental impact for younger audiences.
3. **Clarify Charging Info:** Educate all age groups on infrastructure availability and developments.
4. **Engage Older Demographics:** Create trust through reliability narratives, ease of use, and long-term value.
5. **Target Long-Distance Users:** Highlight range reliability and battery durability.
6. **Design-Centric Promotions:** Appeal to younger buyers with customizable designs and sleek aesthetics.
7. **Enhance Product Line Diversity:** Offer variants with differentiated features (e.g., safety vs. performance models).
8. **Partner with Local Stakeholders:** Collaborate with city planners, businesses, and government to improve infrastructure.
9. **Push for Policy Support:** Advocate for expanded subsidies, rebates, or reduced registration costs.
10. **Financing Partnerships:** Collaborate with banks/NBFCs for low-interest or no-interest EMI plans.
11. **Community Engagement:** Organize workshops, demo days, and awareness events.
12. **Feature Education:** Use digital media to explain and demonstrate riding modes, range estimation, and safety benefits.

Future Scope of the Study

The current research is limited to electric two-wheelers in a semi-urban setting (Kakinada), specifically focusing on the Bajaj Chetak E-Bike. However, there is significant potential to expand this study in the following ways:

1. **Expansion to All EV Categories:** Future studies can encompass the entire spectrum of electric vehicles (two-wheelers, three-wheelers, and four-wheelers) to provide a holistic view of consumer behavior in the electric mobility segment.
2. **Comparative Industry Analysis:** A broader comparative analysis across multiple EV brands and models can offer deeper insights into brand positioning, feature preferences, and differentiating factors influencing purchase decisions.
3. **Urban vs. Semi-Urban vs. Rural Comparison:** By incorporating data from metro cities, semi-urban, and rural regions, researchers can analyze how geographic and infrastructural disparities impact

awareness, adoption, and perception. This would highlight the influence of access to information, economic background, and charging infrastructure on consumer choices.

4. **Longitudinal Studies:** Tracking consumer attitudes and market trends over time will help identify shifts in preferences, policy impact, and the effectiveness of marketing strategies and subsidies.
5. **Post-Purchase Behavioral Studies:** Exploring customer satisfaction, usage behavior, and post-purchase service experiences can offer valuable feedback for improving products and support services.

Conclusion

The study reveals that **cost-effectiveness**, **environmental impact**, and **brand reliability** are the primary drivers influencing consumer decisions toward electric two-wheelers, especially among the middle-income and middle-aged segments. At the same time, **younger consumers** show more inclination towards sustainability and aesthetics, while **older consumers** demonstrate hesitation, potentially due to lack of awareness or perceived complexity.

Despite growing interest, **key challenges** remain:

- Limited charging infrastructure,
- Concerns over battery range and reliability,
- Gaps in awareness across demographic segments,
- Varied expectations regarding design and technology.

To effectively promote the adoption of E-bikes, an **integrated, multi-stakeholder approach** is essential. This includes:

- **Product innovation** to address range, speed, safety, and design concerns,
- **Tailored marketing** to resonate with different demographic groups,
- **Policy support** through incentives, subsidies, and infrastructure development,
- **Community outreach** for awareness and trust-building,
- **Financial solutions** that improve accessibility through loans or installment schemes.

Overall, the findings underscore the **transformational potential of electric two-wheelers** in advancing sustainable urban mobility. However, realizing this potential requires **coordinated efforts** from the government, private sector, and the public to bridge existing gaps and pave the way for a cleaner, more efficient transportation future.

References:

1. **Dr. R. Muthukrishnan et al. (2023)** – Found positive consumer sentiment towards EVs due to eco-friendliness and cost-efficiency but noted low awareness and infrastructure as barriers.
2. **Abhishek Raj et al. (2023, Kerala)** – Identified performance, environmental concerns, and after-sales service as influential, while affordability and infrastructure remain limiting factors.
3. **Vinoth S & Parthiban M (2021, Chennai)** – Revealed interest in eco-friendliness but skepticism about power and reliability in electric two-wheelers.
4. **Dr. Sucheta Y. Naik (2023, Goa)** – Indicated strong inclination due to smoother ride and low maintenance but with concerns on charging and range.
5. **Gurudath M.N. & Dr. Meena Rani (Bangalore)** – Found that higher-income males with greater education were more interested in EVs, influenced by safety, technology, and environmental benefits.