



A STUDY ON CUSTOMER PREFERENCE TOWARDS ELECTRIC TWO-WHEELER AND ITS IMPACT ON ATHER WITH SPECIAL REFERENCE TO PALAKKAD, KERALA

1. Mr. Harish K.R, Research Scholar, MBA Department, Jansons School of Business, Karumathampatty,
2. Dr J Shanthilakshmi, Professor, MBA Department, Jansons School of Business, Karumathampatty,

Abstract:

The adoption of electric two-wheelers is accelerating in India due to rising fuel costs, environmental awareness, and technological advancements. This study explores consumer preferences for electric two-wheelers and their influence on Ather Energy's market performance in Palakkad district. Key factors such as cost-effectiveness, environmental benefits, and smart features are examined alongside barriers like high initial costs, limited charging infrastructure, and battery concerns. Data was gathered through structured questionnaires supported by secondary research. The findings reveal that younger, middle-income consumers—particularly males aged 20–40—are the primary adopters. While Ather enjoys strong brand recognition, limited access to test rides hampers deeper engagement. Government incentives and improved battery technology play a positive role in shaping purchase intentions. With nearly half the respondents planning to buy an electric two-wheeler within a year, the study concludes with strategic recommendations to enhance customer experience and promote the transition to electric mobility in the region.

Keywords:

Electric Two-Wheelers, Customer Preference, Ather Energy, Consumer Adoption Challenges

Introduction:

The global push towards sustainable transportation has led to a growing interest in electric vehicles, particularly electric two-wheelers, in India. With increasing fuel prices, rising environmental concerns, and supportive government policies, consumers are gradually shifting from conventional petrol-powered vehicles to electric alternatives. Ather Energy, a leading player in the Indian electric two-wheeler segment, has gained significant attention for its innovation, design, and technology. This study focuses on understanding customer preferences towards electric two-wheelers and examines how these preferences influence Ather's market growth in the Palakkad district. The research aims to identify the key factors that drive consumer choices—such as cost, performance, brand value, and eco-friendliness—and to explore the challenges faced by users in adopting electric two-wheelers. By analyzing these aspects, the study seeks to provide valuable insights for manufacturers, policymakers, and marketers to enhance customer satisfaction and accelerate the transition to electric mobility in the region.

Customer Preference

Customer Preference refers to the inclination or choice of customers towards specific products, services, or brands based on their needs, desires, and experiences. It is influenced by various factors such as product quality, price, brand reputation, features, convenience, and after-sales service. In the electric vehicle market, especially for two-wheelers, customer preference is shaped by considerations like cost-effectiveness, environmental benefits, performance, and technological innovation. Understanding customer preferences is crucial for businesses like Ather Energy to develop targeted marketing strategies, improve product offerings, and enhance customer satisfaction, thereby gaining a competitive edge in emerging markets like Palakkad.

Ather Energy

Ather Energy is an Indian electric vehicle company founded in 2013 by Tarun Mehta and Swapnil Jain. Headquartered in Bengaluru, Ather specializes in designing and manufacturing high-performance electric two-wheelers, with popular models like the Ather 450X and Ather 450S. Known for their sleek design, smart features, and fast-charging capabilities, Ather scooters are equipped with touchscreen dashboards, mobile app connectivity, and over-the-air software updates. The company has also invested in building its own charging infrastructure, called Ather Grid, across several Indian cities to support seamless EV adoption. Ather's strong focus on innovation, sustainability, and customer experience has helped it emerge as a key player in India's growing electric mobility sector. With increasing demand for eco-friendly transport solutions, Ather continues to expand its market presence, including in Tier-II cities like Palakkad, making it a significant brand in shaping the future of urban transportation in India.

Review of literature

1. N. Ramya and Mr. V. Nithyanantham conducted a study titled "A Study on Customer Preference towards Electric Bikes (E-Bikes) with Special Reference to Coimbatore City." The study aimed to identify the key factors influencing consumer choices, such as pricing, battery life, performance, brand image, environmental awareness, and government support. Primary data was collected through surveys conducted among Coimbatore residents. The findings indicate that customers give priority to aspects like range, speed, design, and environmental impact when choosing an electric bike. Additionally, the study highlights the significant influence of government incentives, availability of charging infrastructure, and advancements in technology on consumer preferences.
2. Shimjith Moolayil and Dr. N. Rajendran conducted a study titled "A Study on Customer Satisfaction and Challenges towards Electric Two-Wheelers in Vatakara City." The objective of the study was to assess customer satisfaction levels and identify the challenges associated with purchasing and using electric two-wheelers in Vatakara. Data for the study were gathered from both primary and secondary sources, with the primary data collected through a structured questionnaire administered to respondents. The study revealed that individuals across all age groups were using electric two-wheelers as a mode of transportation. Key factors that attracted customers included environmental benefits, quick recharging, ease of use, low maintenance, and overall convenience. However, the study also highlighted several challenges faced by users, such as a lack of service centers, shortage of skilled technicians, unclear government policies, and limited knowledge about vehicle maintenance and servicing.
3. Sahilkumar Mahera, Aashik Mansuri, and Dr. Jayprakash Lamoria conducted a study titled "Consumer Perception towards Electric Two-Wheelers in Vadodara City." The study aimed to understand consumer behavior and preferences regarding electric two-wheelers. The findings suggest that both electric vehicle manufacturers and the Government of India need to focus more on promoting the social acceptance of EVs by enhancing infrastructure, developing high-capacity batteries, and fostering greater trust in the technology to build consumer confidence. The results indicate that people are generally aware of the environmental benefits of EVs. However, consumers perceive the price and maintenance costs to be relatively high, while charging

infrastructure and driving range are seen as insufficient and recharging time as too long. Despite these challenges, the study found that over 50% of respondents are planning to purchase an electric vehicle in the near future, reflecting growing interest and potential for market expansion.

4. Syed Waqas Javed and Dr. Hafiz Muhammad Khurram conducted a study titled “Consumer Preferences for Adoption of Two-Wheeler Electric Vehicles.” The primary objective of this research was to offer valuable insights to policymakers in Pakistan for introducing electric two-wheelers as a viable mode of transportation. The study observed that many Pakistani consumers continue to prefer internal combustion engine (ICE) vehicles over electric vehicles (EVs), largely due to a lack of awareness regarding the advantages and disadvantages of EVs. Based on the study’s findings, it was recommended that efforts should be made to raise awareness about electric vehicles, particularly among students and general users. Additionally, the study emphasized the need for expert-managed dealerships, a robust distribution network, and reduced pricing of electric bikes to encourage greater adoption and increase sales.

5. Dr. M.S. Ranjith Kumar and Mr. Harish S. conducted a research study titled “A Study on Customer Preferences and Satisfaction towards Electric Two-Wheelers in Coimbatore City.” This study delves into the various factors influencing consumer preferences and satisfaction related to electric two-wheelers in Coimbatore. It analyzes how socio-economic, technological, and psychological elements—such as income, education, age, gender, and awareness of environmental advantages—impact consumer behavior. Additionally, the research explores the influence of digital media, government incentives, and advancements in battery technology and charging infrastructure on consumer adoption. The study's findings indicate that affordability, environmental awareness, and technological features are the primary factors driving consumer preference. It concludes with strategic recommendations for manufacturers and policymakers to boost electric two-wheeler adoption through focused marketing efforts, better infrastructure, and competitive pricing.

6. Sreeja O.K. conducted a study titled “A Study on Consumer Preference and Satisfaction Regarding the Use of Electric Two-Wheelers – With Special Reference to Calicut City, Kerala.” Adopting a quantitative research approach, the study explored the influence of factors such as price, perceived value for money, and charging infrastructure on purchase intentions and user satisfaction. Based on data collected from 248 respondents, the study found a strong positive relationship between price and purchase intention, with perceived value acting as a mediating factor. It also revealed that improved charging infrastructure significantly enhances user satisfaction with vehicle performance. The findings provide valuable insights for industry stakeholders and policymakers seeking to encourage the adoption of electric two-wheelers.

7. Dr. Jeganathan Gomathi Sankar and Mr. Hemanth Kumar G. conducted a study titled “*Customer Perception Towards Electric Two-Wheeler Innovation.*” The objective of the study was to identify the factors influencing the purchase of electric bikes. An explanatory research design was employed, using the convenience sampling method with a sample size of 145 respondents. The analytical tools used in the study included frequency analysis, independent t-test, one-way ANOVA, and regression analysis. The findings revealed that key factors influencing customer perception included charging time, the limited number of available models, distance that can be travelled on a full charge, and environmental concerns.

8. Dr. Mohd Waheeduddin and Amtul Wahab conducted a study titled “Consumer Perception of Two-Wheeler Electric Vehicles (EVs)” in the context of the rapidly expanding urban landscape of Hyderabad. The study adopted a mixed-methods research design, incorporating both surveys and interviews, to investigate consumer awareness, preferences, and perceived barriers influencing perceptions of electric two-wheelers in the Hyderabad market. The findings concluded that the majority of respondents showed a preference for the Hero brand. Additionally, the study revealed that most respondents supported the role of electric vehicles in reducing global warming, were satisfied with battery efficiency, and considered the vehicle model to be the most important factor influencing their choice.

Statement of the Problem:

The increasing environmental concerns, fluctuating fuel prices, and government initiatives have led to a growing interest in electric two-wheelers across India. Despite this shift, the adoption rate of electric two-wheelers remains relatively low in many regions, including Palakkad. Ather Energy, a leading player in the electric vehicle segment, is striving to expand its market presence but faces challenges in understanding and addressing local customer preferences. Consumers often encounter issues related to cost, charging infrastructure, performance expectations, and brand perception, which influence their purchasing decisions. There is a need to explore how these factors affect consumer behavior and, in turn, Ather's market performance. This study aims to bridge the gap by analyzing customer preferences, identifying the key motivators and barriers in adopting electric two-wheelers, and evaluating their impact on Ather's growth in the Palakkad district. Understanding these aspects is essential for developing effective strategies to enhance adoption and customer satisfaction.

OBJECTIVES OF THE STUDY

1. To analyse consumer preferences towards electric two-wheelers and assess their impact on Ather's market growth in Palakkad District.
2. To identify the key factors that influence customers to choose electric two-wheelers over traditional petrol vehicles.
3. To examine the challenges faced by consumers in adopting electric two-wheelers and suggest possible solutions.

RESEARCH METHODOLOGY

RESEARCH DESIGN

It outlines the framework within which the study will be conducted, including the methods, procedures, and techniques that will be used to collect and analyze data.

This study is descriptive in nature. The study is based on primary data and the secondary data. Primary data was collected through the questionnaire and the secondary data was collected from internet, books, and articles.

SAMPLE SIZE

In this survey the sample size is 200.

SAMPLING METHOD

Sampling methods are techniques used by researchers to select a subset of individuals or items from a larger population for inclusion in a study.

For this study, convenience sampling method is used.

TOOLS AND TECHNIQUES USED IN THIS STUDY

The responses from the respondents were analyzed using the

1. Simple percentage method
2. Correlation Analysis
3. One-Way ANOVA (Analysis of Variance)

HYPOTHESIS

One-Way ANOVA (Analysis of Variance)

Null Hypothesis (H_0): There is no significant difference in the key factors encouraging the purchase of an electric two-wheeler among different groups.

Alternative Hypothesis (H_1): There is a significant difference in the key factors encouraging the purchase of an electric two-wheeler among different groups.

Correlation Analysis

Null Hypothesis (H_0): There is no significant relationship between age and satisfaction with Ather Electric Two-Wheeler performance.

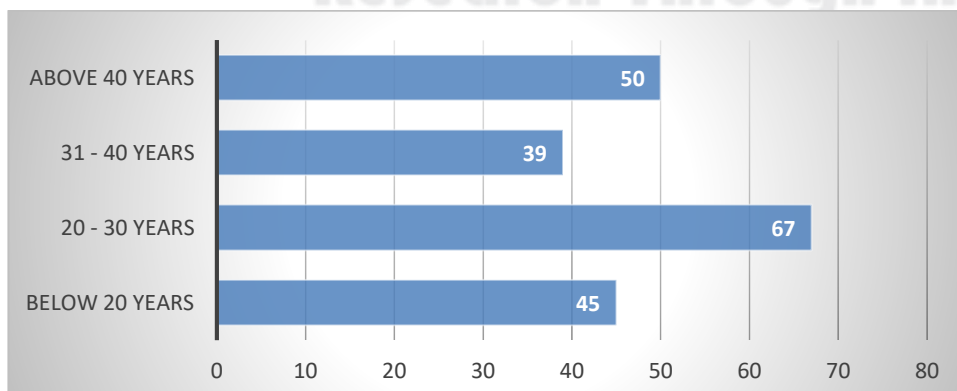
Alternative Hypothesis (H_1): There is a significant relationship between age and satisfaction with Ather Electric Two-Wheeler performance.

DATA ANALYSIS & INTERPRETATION

Table no 1: Age-wise Distribution of Respondents

Age Group	Respondents	Percentage (%)
Below 20 years	45	22.39%
20 - 30 years	67	33.33%
31 - 40 years	39	19.40%
Above 40 years	50	24.88%
Total	200	100%

Chart no 1: Age-wise Distribution of Respondents



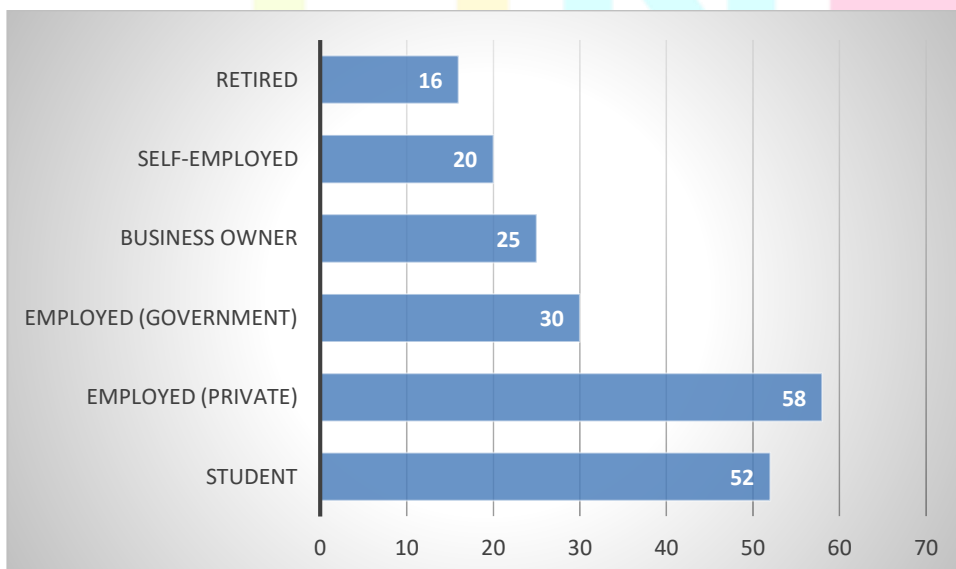
Interpretation:

Based on the above table, it is evident that the majority of respondents fall within the 20–30 years age group, accounting for 33.33% of the total sample. This suggests that young adults show a greater preference for electric two-wheelers, possibly driven by rising fuel prices and increased environmental awareness. The second-largest group consists of individuals above 40 years, representing 24.88%, indicating growing acceptance of electric vehicles among older age groups. Respondents under 20 years make up 22.39%, while those in the 31–40 age bracket constitute 19.40%, reflecting a fairly balanced interest in electric two-wheelers across all age segments.

Table no 2: Occupation-wise Distribution of Respondents

Occupation	Respondents	Percentage (%)
Student	52	25.87%
Employed (Private)	58	28.86%
Employed (Government)	30	14.93%
Business Owner	25	12.44%
Self-Employed	20	9.95%
Retired	16	7.96%
Total	200	100%

Chart no 2: Occupation-wise Distribution of Respondents



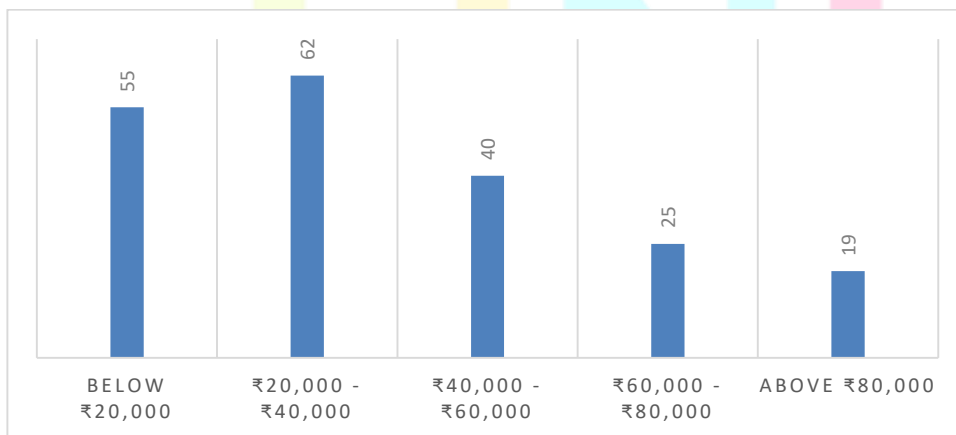
Interpretation:

The largest proportion of respondents are from the private employment sector (28.86%), indicating a strong demand for electric two-wheelers among working professionals. Students represent the second-largest group at 25.87%, reflecting their interest in EVs, likely driven by affordability and environmental sustainability. Government employees constitute 14.93% of the sample, while business owners and self-employed individuals make up 12.44% and 9.95%, respectively. Retired individuals account for the smallest segment at 7.96%, suggesting that while EV adoption is relatively lower among older consumers, it is still notable. This occupational distribution underscores the primary target segments for electric two-wheeler brands like Ather.

Table no: 3 Monthly Income-wise Distributions of Respondents

Monthly Income Range	Respondents	Percentage (%)
Below ₹20,000	55	27.36%
₹20,000 - ₹40,000	62	30.85%
₹40,000 - ₹60,000	40	19.90%
₹60,000 - ₹80,000	25	12.44%
Above ₹80,000	19	9.45%
Total	200	100%

Chart no: 3 Monthly Income-wise Distributions of Respondents



Interpretation:

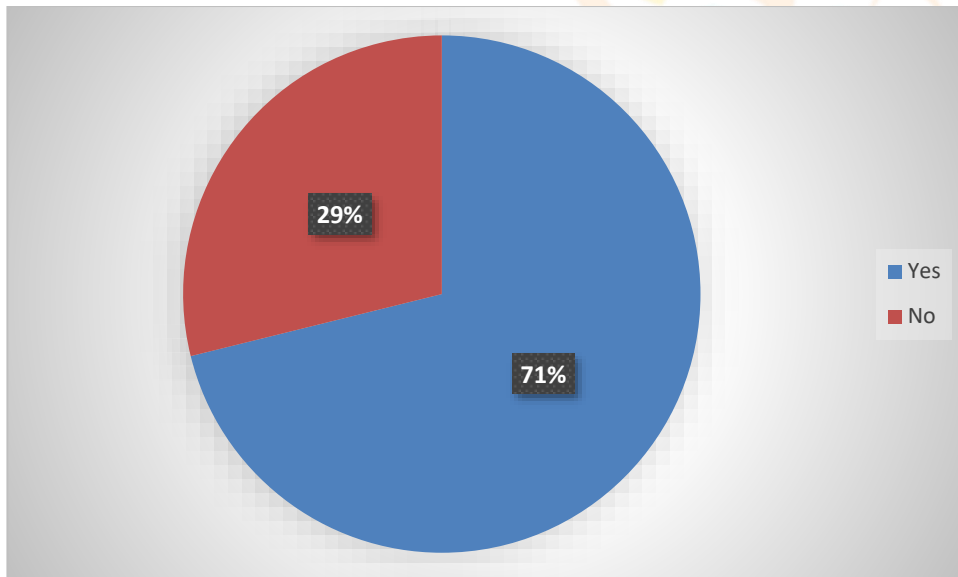
The majority of respondents (30.85%) fall within the ₹20,000–₹40,000 income bracket, indicating strong interest in electric two-wheelers among middle-income earners. A notable share (27.36%) earns below ₹20,000, highlighting the importance of affordability in driving EV adoption. Those earning between ₹40,000 and

₹60,000 comprise 19.90% of the sample, reflecting consistent demand from the upper middle-income segment. Meanwhile, 12.44% of respondents fall within the ₹60,000–₹80,000 range, and 9.45% earn above ₹80,000, suggesting that premium EV models may appeal to higher-income consumers. This income distribution provides valuable insights into the affordability and purchasing power of potential Ather customers.

Table no 4: Consideration of Purchasing an Electric Two-Wheeler

Consideration Status	Respondents	Percentage (%)
Yes	143	71.14%
No	58	28.86%
Total	200	100%

Chart no 4: Consideration of Purchasing an Electric Two-Wheeler



Interpretation:

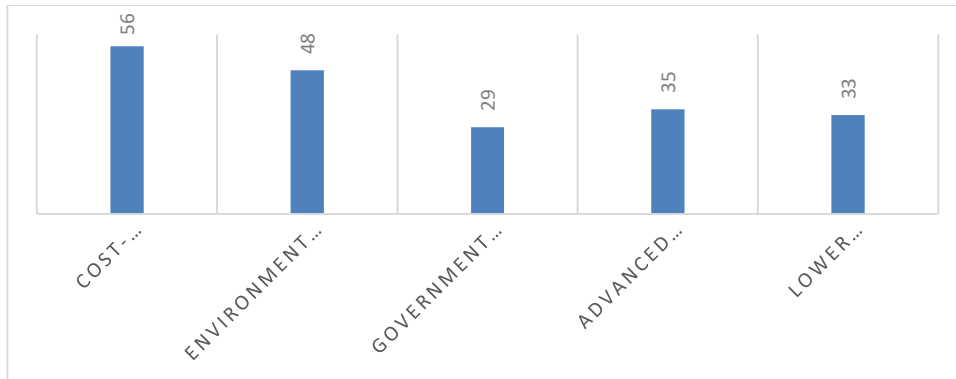
A majority of respondents (71.14%) have considered purchasing an electric two-wheeler, while 28.86% have not yet considered making such a purchase.

Table no 5: Primary Reason for Choosing an Electric Two-Wheeler

Reason	Respondents	Percentage (%)
Cost-effectiveness	56	27.86%
Environmental benefits	48	23.88%
Government subsidies	29	14.43%

Advanced technology & features	35	17.41%
Lower maintenance costs	33	16.42%
Total	200	100%

Chart no 5: Primary Reason for Choosing an Electric Two-Wheeler

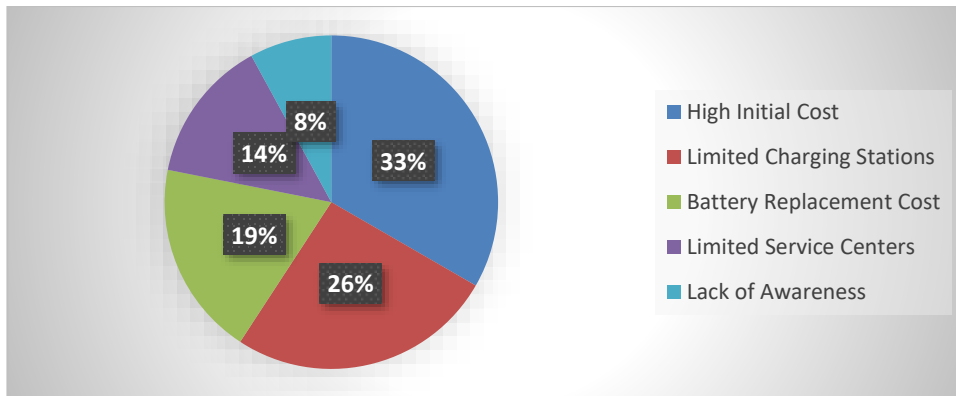


Interpretation:

The largest share of respondents (27.86%) cite cost-effectiveness as the primary reason for choosing an electric two-wheeler, underscoring the significance of affordability and fuel savings. Environmental benefits are the second most cited reason at 23.88%, indicating a growing sense of eco-consciousness among consumers. Government subsidies influence 14.43% of respondents, highlighting the role of financial incentives in encouraging EV adoption. Additionally, 17.41% are drawn to electric vehicles for their advanced technology and features, while 16.42% value the lower maintenance costs. These findings suggest that brands like Ather should focus on promoting affordability, sustainability, and technological innovation to attract a broader customer base.

Table no 6 : Biggest Challenge in Purchasing an Ather Electric Scooter

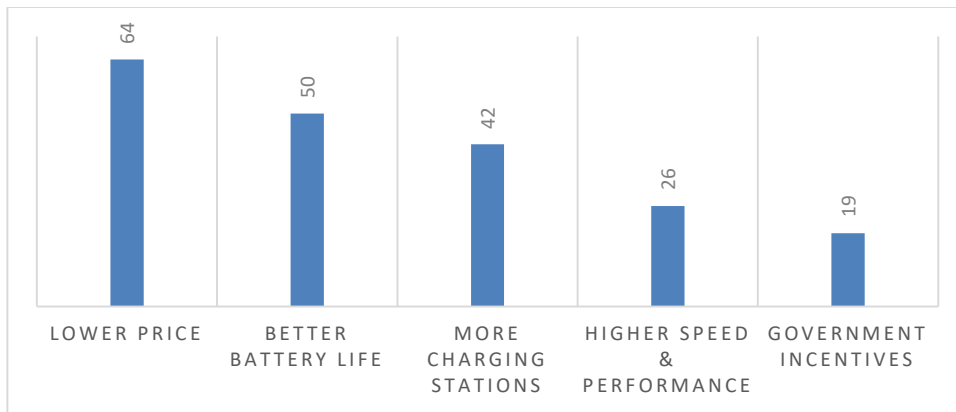
Challenge	Respondents	Percentage (%)
High Initial Cost	67	33.33%
Limited Charging Stations	52	25.87%
Battery Replacement Cost	38	18.91%
Limited Service Centers	28	13.93%
Lack of Awareness	16	7.96%
Total	200	100%

Chart no 6: Biggest Challenge in Purchasing an Ather Electric Scooter**Interpretation:**

The high initial cost (33.33%) emerges as the most significant challenge for potential buyers, emphasizing the need for improved financing options or government incentives to enhance the affordability of Ather scooters. Limited availability of charging stations (25.87%) is another major concern, highlighting the importance of infrastructure development to support wider adoption. Battery replacement costs (18.91%) also pose a considerable issue, indicating that long-term ownership expenses influence consumer decisions. While limited service centers (13.93%) and lack of awareness (7.96%) are comparatively lesser concerns, they remain relevant. Addressing these challenges through competitive pricing, expansion of charging and service networks, and greater awareness campaigns could significantly boost Ather's market penetration.

Table no 7: Key Factors Encouraging Purchase of an Electric Two-Wheeler

Factor	Respondents	Percentage (%)
Lower Price	64	31.84%
Better Battery Life	50	24.88%
More Charging Stations	42	20.90%
Higher Speed & Performance	26	12.94%
Government Incentives	19	9.45%
Total	200	100%

Chart no 7: Key Factors Encouraging Purchase of an Electric Two-Wheeler**Interpretation:**

Lower price (31.84%) is the most influential factor motivating people to purchase an electric two-wheeler, highlighting that affordability remains a primary concern. Better battery life (24.88%) is another key factor, indicating that consumers value long-lasting and efficient batteries. The availability of more charging stations (20.90%) also plays a significant role, emphasizing the importance of a robust charging infrastructure. Higher speed and performance (12.94%) and government incentives (9.45%) are less dominant factors but still hold relevance. To increase sales, manufacturers like Ather should prioritize competitive pricing, advancements in battery technology, and the expansion of charging networks.

One Way ANOVA**Table no: 8**

Null Hypothesis (H_0): There is no significant difference in the key factors encouraging the purchase of an electric two-wheeler among different groups.

Alternative Hypothesis (H_1): There is a significant difference in the key factors encouraging the purchase of an electric two-wheeler among different groups.

ANOVA					
Key Factors Encouraging Purchase of an Electric Two-Wheeler					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	34.813	4	8.703	93.996	.000
Within Groups	4.167	45	.093		
Total	38.980	200			

The one-way ANOVA results reveal a significant difference in the key factors influencing the purchase of electric two-wheelers across different consumer groups ($F = 93.996$, $p = 0.000$). As the p-value is well below the 0.05 significance level, the null hypothesis is rejected, indicating that consumer preferences vary notably among the groups. The higher between-group variance (34.813) compared to the within-group variance (4.167) further supports the presence of meaningful differences in purchasing motivations.

Correlation

Table no: 9

Null Hypothesis (H_0): There is no significant relationship between age and satisfaction with Ather Electric Two-Wheeler performance.

Alternative Hypothesis (H_1): There is a significant relationship between age and satisfaction with Ather Electric Two-Wheeler performance.

Correlations			
		Age	Satisfaction with Ather Electric Two-Wheeler Performance
Age	Pearson Correlation	1	.924**
	Sig. (2-tailed)		.000
	N	200	200
Satisfaction with Ather Electric Two-Wheeler Performance	Pearson Correlation	.924**	1
	Sig. (2-tailed)	.000	
	N	200	200
**. Correlation is significant at the 0.01 level (2-tailed).			

Interpretation

The correlation analysis reveals a strong positive relationship between age and satisfaction with the performance of Ather electric two-wheelers ($r = 0.924$, $p = 0.000$). The Pearson correlation coefficient, being close to +1, indicates a very strong association, suggesting that satisfaction levels tend to increase with age. Furthermore, the p-value of 0.000 is well below the 0.01 significance level, confirming that the correlation is statistically significant.

CONCLUSION:

The study finds that younger consumers, especially males aged 20–40, show strong interest in electric two-wheelers, with middle-income earners as key buyers. Cost-effectiveness, environmental benefits, and smart features are major drivers of preference. Ather enjoys strong brand awareness in Palakkad, though limited test ride access hinders engagement. High initial cost, limited charging stations, and battery concerns remain key challenges. Government incentives and improved battery technology positively influence purchase decisions. Nearly half the respondents plan to buy an electric two-wheeler within a year, and many believe EVs will replace petrol scooters in the next decade.

RECOMMENDATIONS AND SUGGESTIONS:

To enhance adoption, Ather should offer flexible financing, EMI options, and promote government subsidies. Expanding charging infrastructure through public-private partnerships and encouraging home charging solutions is essential. Investment in advanced battery technology will address concerns about battery life and charging time. Test ride campaigns, roadshows, and dealership promotions can improve consumer engagement. Increasing service centers and introducing mobile servicing will boost convenience. A budget-friendly model in the ₹1,00,000–₹1,50,000 range should be considered. Marketing should emphasize performance, smart features, and environmental benefits. Educating consumers on long-term advantages and launching high-performance variants can further strengthen market presence.

References

1. N. Ramya, Mr. V.Nithyanantham, A Study On Customer Preference Towards Electric Bikes (E-Bikes) With Special Reference To Coimbatore City, 2025 IJCRT | Volume 13, Issue 4 April 2025 | ISSN: 2320-2882
2. Shimjith Moolayil, Dr. N. Rajendran, A Study On Customer Satisfaction And Challenges Towards Electric Two Wheeler In Vatakara City, 2024 IJCRT | Volume 12, Issue 11 November 2024 | ISSN: 2320-2882
3. Sahilkumar Mahera, Aashik Mansuri, Dr. Jayprakash Lamoria, Consumer perception towards electric two-wheeler in vadodara city, 2024 IJNRD | Volume 9, Issue April 2024 | ISSN: 2456-4184 | IJNRD.ORG
4. Syed Waqas Javed, Dr. Hafiz Muhammad Khurram, Consumer Preferences for Adoption of Two Wheeler Electric Vehicles, European Journal of Technology ISSN 2520-0712 (online) Vol.6, Issue 3, pp 37 - 48, 2022
5. Dr. M.S Ranjith Kumar, Mr. Harish. S, A study on customers preference and satisfaction towards electric two wheelers, Coimbatore city, INTERNATIONAL JOURNAL OF RESEARCH CULTURE SOCIETY , Volume - 9, Issue - 3, March – 2025, ISSN(O): 2456-6683, DOIs:10.2017/IJRCS/202503021

6. Sreeja OK, et al (2024), A Study On Consumer Preference And Satisfaction Of Usage Towards Electric Two Wheelers - A Study With Special Reference To Calicut City Kerala, Educational Administration: Theory and Practice, 30(4), 9277-9285, Doi: 10.53555/kuey.v30i4.3486
7. Dr. Jeganathan gomathi sankar, Mr. Hemanth kumar. G, Customer perception towards electric two-wheeler innovation, Journal of Contemporary Issues in Business and Government Vol. 26, No. 2, 2020, P-ISSN: 2204-1990; E-ISSN: 1323-6903, DOI: 10.47750/cibg.2020.26.02.096
8. Dr. Mohd Waheeduddin, Amtul Wahab, A Study on Consumer Perception towards Two-Wheeler Electric Vehicles in Hyderabad, International Research Journal on Advanced Engineering and Management, e ISSN: 2584-2854, Volume: 02, Issue: 04 April 2024,
<https://doi.org/10.47392/IRJAEM.2024.00103>

