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To Study the Perception and Attitude of Consumers toward Ather Electric Vehicles in Coimbatore City

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Abstract: *The study examines the perception and attitude of consumers toward Ather electric vehicles in Coimbatore city. With the growing importance of electric mobility, factors such as environmental awareness, rising fuel prices, and technological advancements influence consumer decisions. The research is based on primary data collected from 50 respondents using a structured questionnaire. It analyzes consumer awareness, satisfaction, and factors like price, performance, and charging infrastructure. Statistical tools such as percentage analysis, Chi-square, and ANOVA are used for interpretation. The findings reveal that consumers have a generally positive perception of Ather electric vehicles, though challenges like high cost and limited charging facilities remain. The study concludes that improving infrastructure and affordability can enhance EV adoption.*

Keywords: Electric Vehicles, Consumer Perception, Ather Energy, Customer Satisfaction, Charging Infrastructure, Purchase Decision

I. INTRODUCTION

The automobile industry is shifting toward electric vehicles due to rising fuel prices and environmental concerns. Ather Energy has emerged as a leading electric scooter brand in India with advanced technology and smart features. In cities like Coimbatore, the demand for eco-friendly transportation is increasing rapidly. Consumer perception and attitude play a key role in the adoption of electric vehicles. Factors such as price, performance, charging infrastructure, and environmental awareness influence buying decisions. This study focuses on analyzing the perception and attitude of consumers toward Ather electric vehicles in Coimbatore city.

OBJECTIVES OF THE STUDY

- To study the perception and attitude of consumers towards Ather electric vehicles in Coimbatore city.
- To measure the level of awareness about Ather electric scooters among consumers.
- To identify factors influencing the purchase decision of Ather EVs.

STATEMENT OF THE PROBLEM

The need for this study arises due to the growing importance of electric vehicles in India. Understanding consumer perception and attitude toward Ather electric vehicles helps identify factors influencing their adoption. This study helps in analyzing awareness, satisfaction, and challenges faced by consumers.

SCOPE OF THE STUDY

The study focuses on analyzing consumer perception and attitude toward Ather electric vehicles in Coimbatore city. It covers aspects such as awareness, satisfaction, and factors influencing purchase decisions. The study also examines

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challenges faced by consumers in adopting electric vehicles. It is limited to a sample of 50 respondents in Coimbatore. The findings provide insights into consumer behavior toward electric mobility.

RESEARCH METHODOLOGY

Research methodology is a systematic and scientific approach used to collect, analyze, and interpret data to achieve the objectives of the study.

Sample Size and Sample Technique

Sample Size: 50 respondents of working women
Sampling Method: Convenience sampling.

Statistical Tools:

- Percentage analysis
- Chi-Square analysis
- Anova analysis

II. REVIEW OF LITERATURE

Dr. Shabbirali Sherali Thavara (2026)[1] this study investigates consumer perception and purchase preferences toward EVs in North Gujarat, using 412 responses collected via convenience sampling. Data analysis through reliability tests, descriptive statistics, factor analysis, and regression revealed that awareness, and social media significantly influence purchase preference. The study suggests that subsidies, tax benefits, and incentives are essential to make EVs affordable, while targeted awareness campaigns and performance improvements can further strengthen consumer adoption.

J. Smruthymol, R. Velmurugan (2025)[2] the study in Coimbatore District surveyed 275 EV users to examine adoption preferences. Analysis highlighted reduced operating costs, government incentives, technological advancements, and environmental awareness as the strongest motivators. Together, these measures aim to strengthen market promotion initiatives and accelerate EV acceptance in the region.

P. Kumarasamy,M. Krishnamoorthi(2024)[3] In recent years, the automotive industry has increasingly sought cost-effective alternatives to traditional vehicles, concerns over noise and carbon emissions, and the push for a greener environment have led governments to promote electric vehicles. Conducted as descriptive research, it surveyed 120 respondents using a simple sampling method and collected data through a Google questionnaire. The findings provide attitudes toward EVs and highlight the elements influencing their decision-making process.

III. DATA ANALYSIS AND INTERPRETATION

PERCENTAGE ANALYSIS

TABLE NO.1 GENDER OF THE RESPONDENTS

GENDER	RESPONDENTS	PERCENTAGE
FEMALE	28	56%
MALE	22	44%
TOTAL	**50**	**100%**

Source Data: Questionnaire

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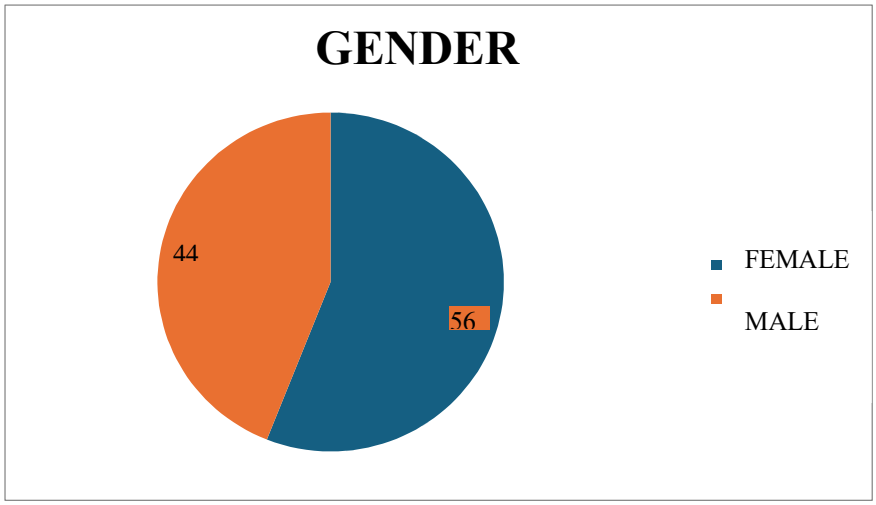
CHART NO.1 GENDER OF THE RESPONDENTS
INTERPRETATION



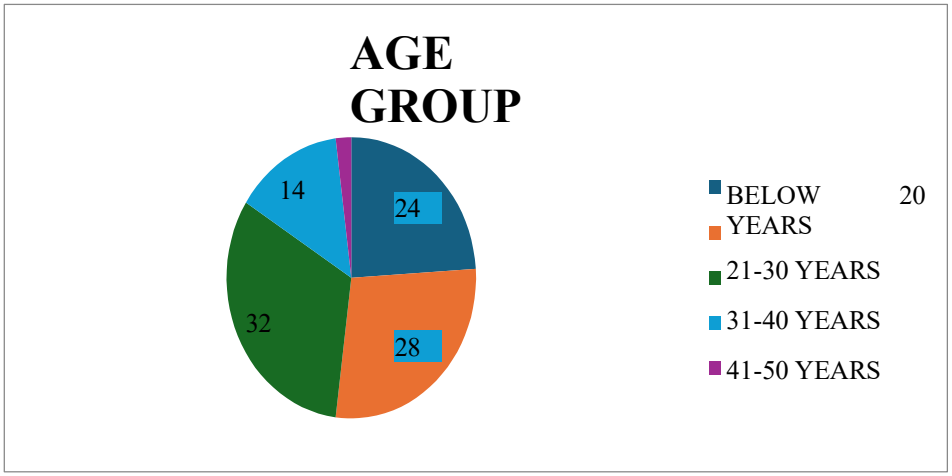
The above table shows the gender of the respondents. The majority of the respondents 56% are female. About 44% of the respondents are male. This indicates that female respondents constitute a larger proportion of the sample compared to male respondents. **The majority 56% of the respondents are female.**

TABLE NO.2 AGE OF THE RESPONDENTS

AGE GROUP	RESPONDENTS	PERCENTAGE
BELOW 20 YEARS	12	24%
21 - 30	14	28%
31 - 40	16	32%
41 - 50	7	14%
ABOVE 50 YEARS	1	2%
TOTAL	**50**	**100%**

Source Data: Questionnaire

CHART NO.2 AGE OF THE RESPONDENTS



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INTERPRETATION

The above table shows the age group of the respondents. The majority 32% of the respondents are in the age group of 31–40 years. About 28% of the respondents are in the age group of 21– 30 years. 24% of the respondents are below 20 years, while 14% are in the age group of 41–50 years. Only 2% of the respondents are above 50 years. **The most 32% of the respondents are in the age group of 31–40 years.**

CHI-SQUARE ANALYSIS

1. Gender vs. Overall Perception of Ather EV

HYPOTHESIS:

H_0: There is no association between Gender and Overall Perception.

H_1: There is a association between Gender and Overall Perception.

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.688[a]	4	.224
Likelihood Ratio	5.887	4	.208
Linear-by-Linear Association	.990	1	.320
N of Valid Cases	50		

Source: Calculated Data

INTERPRETATION

The above table shows the relationship between gender and overall perception of Ather EV using the Chi-Square test. The p-value is 0.224, which is greater than the significance level of 0.05. Therefore, the null hypothesis (H_0) is accepted and the alternative hypothesis (H_1) is rejected. This indicates that there is no significant association between gender and the overall perception of Ather EV among the respondents.

2. Area of Residence vs Major Challenge Faced

HYPOTHESES

H_0: There is no significant association between the Area of Residence and Major Challenge Faced.

H_1: There is a significant association between the Area of Residence and Major Challenge Faced.

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.659[a]	8	.468
Likelihood Ratio	9.618	8	.293
Linear-by-Linear Association	3.259	1	.071
N of Valid Cases	50		

Source: Calculated Data

INTERPRETATION

A Chi-Square test was conducted to examine the association between the variables. The Pearson Chi-Square value is 7.659 with 8 degrees of freedom, and the p-value is 0.468. Since the p-value (0.468) is greater than 0.05, the result is not statistically significant at the 5% level. Therefore, the null hypothesis is accepted and the alternative hypothesis is rejected.

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ONE WAY ANOVA

1. Age and ather apply vehicles are technologically advanced

HYPOTHESES (ANOVA)

H_0: There is no significant difference among different age groups regarding their opinion that electric vehicles are technologically advanced.

H_1: There is a significant difference among different age groups regarding their opinion that electric vehicles are technologically advanced.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	6.171	4	1.543	1.016	.410
Within Groups	66.808	44	1.518		
Total	72.980	48			

Source: Calculated Data

INTERPRETATION:

The ANOVA result shows that the significance value (Sig. = 0.410) is greater than the standard level of 0.05. Therefore, the null hypothesis (H_0) is accepted and the alternative hypothesis (H_1) is rejected. This indicates that there is no significant difference among different age groups regarding their opinion that electric vehicles are technologically advanced. Hence, age does not significantly influence respondents' perception about the technological advancement of electric vehicles.

2**. Monthly income and How satisfied are you with Ather's after-sales service**?

HYPOTHESES (ANOVA)

H_0: There is no significant difference among different age groups regarding their opinion that electric vehicles are technologically advanced.

H_1: There is a significant difference among different age groups regarding their opinion that electric vehicles are technologically advanced.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	9.444	4	2.361	1.437	.237
Within Groups	73.936	45	1.643		
Total	83.380	49			

Source: Calculated Data

INTERPRETATION

The ANOVA result shows that the significance value (Sig. = 0.237) is greater than the standard significance level of 0.05. Therefore, the null hypothesis (H_0) is accepted and the alternative hypothesis (H_1) is rejected. This indicates that there is no significant difference among different age groups regarding their opinion that electric vehicles are technologically advanced. Hence, age does not have a significant influence on respondents' perception of the technological advancement of electric vehicles

V. FINDINGS

The majority **56%** of the respondents are female.

The most **32%** of the respondents are in the age group of 31–40 years.

There is no significant association between gender (p = 0.224) and the overall perception of Ather EV among the respondents.

There is no significant association between gender and perception of Ather EV, as the Pearson Chi-Square value (5.688, df = 4) is not statistically significant at the 5% level (p = 0.224).

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There is no significant difference between age groups regarding the perception that electric vehicles are technologically advanced ($p = 0.410$).
There is no significant difference between age groups regarding the perception that electric vehicles are technologically advanced ($p = 0.237$).

SUGGESTIONS

Expand charging stations in semi-urban and rural areas and promote fast-charging facilities to reduce range anxiety. Provide flexible EMI options, exchange offers, and collaborate with financial institutions for low-interest loans.

VI. CONCLUSION

Consumers in Coimbatore have a positive attitude toward Ather electric vehicles, especially among young and educated groups. Environmental awareness, fuel costs, and technology drive their purchase decisions. Ather shows strong growth potential with improved infrastructure and marketing. Focusing on consumer concerns will further boost electric vehicle adoption in the region.

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