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A STUDY ON FACTORS INFLUENCE TO PURCHASE DECISION AND SATISFACTION TOWARDS ELECTRIC SCOOTER AMONG CUSTOMERS IN KANCHIPURAM DISTRICT

POOJA. R[1], DR. PRIYA.U[2]

[1] RESEARCH SCHOLAR, DEPARTMENT OF COMMERCE, FACULTY OF SCIENCE AND HUMANITIES, SRM INSTITUTE OF SCIENCE AND TECHNOLOGY, KATTANKULATHUR-603203. MAIL ID: pr3767@srmist.edu.in
[2] ASSISTANT PROFESSOR, DEPARTMENT OF COMMERCE, FACULTY OF SCIENCE AND HUMANITIES, SRM INSTITUTE OF SCIENCE AND TECHNOLOGY, KATTANKULATHUR-603203.

ABSTRACT
The rapid growth of electric vehicles has emerged as a significant development in the Indian transportation sector, driven by rising fuel costs, environmental concerns, and supportive government policies. Electric scooters, in particular, have gained popularity as an eco-friendly and cost-effective mode of personal transport. The present study aims to examine the factors influencing purchase decision and customer satisfaction towards electric scooters among customers in Kanchipuram District. The findings of the study reveal that price affordability, government incentives, battery performance, availability of charging facilities, and after-sales service quality play a significant role in influencing purchase decisions. Further, purchase decision was found to have a positive and significant impact on customer satisfaction towards electric scooters. The study provides valuable insights for manufacturers, policymakers, and marketers to design effective strategies for improving adoption and satisfaction levels of electric scooters, thereby promoting sustainable and green mobility in the region.
Keywords: Electric vehicles, environment, purchase, cost, satisfaction.

INTRODUCTION

In recent years, the demand for electric vehicles has increased rapidly across the world due to rising fuel prices, environmental pollution, and climate change concerns. In India, electric scooters have become a popular alternative to traditional petrol scooters because they are economical, eco-friendly, and easy to use. The Government of India also supports the use of electric vehicles by providing subsidies, incentives, and developing charging infrastructure.

Electric scooters help reduce air pollution and dependence on fossil fuels. However, the decision to purchase an electric scooter depends on several factors such as price, battery performance, charging facilities, brand image, government policies, and after-sales service. At the same time, customer satisfaction plays an important role in determining continued usage and recommendation of electric scooters to others.

Kanchipuram District has witnessed growing interest in electric scooters due to urbanization and increased awareness of sustainable transportation. Therefore, it is important to understand the factors that influence customers' purchase decisions and their level of satisfaction towards electric scooters. This study attempts to analyze these factors and provide useful insights to manufacturers, marketers, and policymakers to promote electric mobility effectively.

STATEMENT OF THE PROBLEM

In India, the use of electric vehicles especially electric scooters, which are regarded as an affordable and environmentally beneficial form of transportation has increased due to growing worries about traffic congestion, rising fuel prices, and environmental pollution. The adoption rate of electric scooters is still uneven between regions, even with government assistance in the form of subsidies, incentives, and regulatory efforts. Even though more people in Kanchipuram District are becoming aware of electric scooters, many consumers are still unsure about whether to buy one because of things like high initial costs, a lack of infrastructure for charging them, problems with battery performance, insufficient information, and worries about after-sales service. Furthermore, the degree of satisfaction among current consumers varies according to perceived value, service quality, and usage experience. This necessitates of the elements impacting electric scooter buying decisions and consumer satisfaction. In order for manufacturers, marketers, and legislators to develop successful strategies to increase adoption and boost customer satisfaction and thereby support the growth of sustainable and green mobility in the district, it is imperative that these factors be understood in order to identify current gaps and challenges.

IMPORTANCE OF THE STUDY

This study is essential because it provides illuminates the reasons behind consumers' decisions to purchase electric scooters and their level of satisfaction with them. Despite the fact that electric scooters are economical and environmentally beneficial, many consumers are still unwilling to buy them because of issues with pricing, battery life, charging options, and customer service. In order to enhance product quality, price, and post-purchase support, the study assists manufacturers and dealers in understanding what consumers expected from electric scooters. Additionally, it assists the government and lawmakers in understanding the issues that consumers experience and in taking action to enhance the infrastructure for charging and raise public awareness of electric vehicle initiatives. Furthermore, because it offers basic information regarding consumer behaviour regarding electric scooters in Kanchipuram District, the study is beneficial to researchers and students alike. All things considered, this study encourages improved decision-making and promotes electric scooters as a reliable and environmentally friendly form of transportation.

OBJECTIVES OF THE STUDY

1. To identify the factors influencing the purchase decision of electric scooters among customers in Kanchipuram District.
2. To analyze the level of customer satisfaction towards electric scooters among customers in Kanchipuram District.

REVIEW OF LITERATURE

Manivannan and Jeyanthi (2025) investigated Chennai City's electric two-wheeler consumers' awareness and contentment. Their findings demonstrated that although consumers value performance, cost savings, and environmental friendliness, design flaws and gaps in the charging infrastructure have a detrimental impact on user happiness and purchase intent. The study's conclusion, which emphasized the importance of infrastructure and information in influencing purchase decisions and customer satisfaction, was that enhancing government and dealership interaction might increase consumer confidence and aid in the adoption of electric two-wheelers.

Vishnu (2025) investigated consumers' post-purchase satisfaction and purchase intention for electric scooters. Key factors that affect a consumer's decision to buy as well as their degree of happiness afterward were discovered by the study. These factors include pricing, driving range, charging infrastructure, design elements, and environmental benefits. Problems including high upfront costs and a lack of charging stations were also emphasized, demonstrating how these elements might impact overall satisfaction and future suggestions for sustainable mobility solutions.

Banupriya and Sengamalam (2024) concentrated on working women's intents and views regarding electronic scooters. The study discovered that cultural views, cost, safety concerns, environmental awareness, and convenience all had a big impact on consumers' intents to use e-scooters. This study, which focuses on particular demographics, demonstrates how perceptions differ between gender groups and offers insightful information on aspects that influence purchasing decisions, especially for working women.

Waheeduddin, Wahab, and Sultana (2024) investigated how Hyderabadi consumers felt about electric two-wheelers. The study examined perceptions of hurdles, preferences, and awareness regarding EV buying decisions using a mixed-methods methodology. Results showed that environmental concerns, the need for urban mobility, and perceived obstacles including information gaps and infrastructure constraints influence customer preferences. According to this, attitudes and real-world difficulties both affect how people view and feel about electric two-wheelers, especially scooters.

Smitha (2024) investigated the factors that influence consumers' purchasing decisions about electric vehicles in Bengaluru and discovered that environmental concerns, understanding of emission reductions, and consumer habits all had a substantial impact on purchase intention. The study shows how decisions to use EVs, including e-scooters, in urban Indian contexts are influenced by personal habits and perceptions of environmental benefits, despite its broader scope than just scooters.

Qiu, Thoo, and Zhan (2024) carried out a comprehensive analysis of the literature on variables affecting battery electric vehicle purchase intention, including knowledge of range anxiety, charging issues, and consumer inventiveness. Range concern and problems with charging infrastructure continue to impede adoption plans despite increasing market interest, according to the data, which is consistent with field research demonstrating comparable difficulties for purchasers of electric scooters.

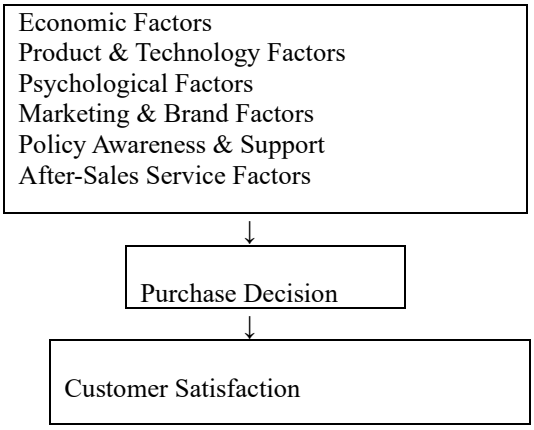
Nayaab and Satish Kumar (2022) reviewed the literature with an emphasis on Indian consumers' preferences and views regarding the adoption of electric vehicles. Despite the perception that electric vehicles are better for the environment, the authors discovered that real adoption is still in its infancy. Incentives from the government, robust customer support networks, and after-sales services are important elements that impact consumer interest in EVs like electric scooters. These aspects also have a significant impact on customer preference and purchasing intention.

Ayasingh, Girija, and Arunkumar (2021) examined the factors influencing Indian customers' inclination to purchase electric two-wheelers. The findings demonstrated that attitudes toward electric two-wheelers are positively impacted by perceived economic benefits, environmental concerns, and charging infrastructure, which

in turn have a major impact on purchase intentions. These results provide credence to the notion that situational considerations and consumer perception play a major role in EV purchasing decisions.

Lashari, Ko, and Jang (2021) investigated how attitudes and perceptions affected consumers' intentions to buy electric cars. According to their research, among the best indicators of purchase intention are impressions of the environment and the economy. The study also shows that adoption might be adversely affected by technological issues, suggesting that in order to increase consumer interest, attitudes of vehicle performance and innovation should be addressed.

CONCEPTUAL FRAMEWORK



HYPOTHESIS

HYPOTHESIS-1:

H0- There is no significant relationship between factors influencing purchase decision (such as price, battery performance, charging infrastructure, government incentives, and after-sales service) and the purchase decision of electric scooters among customers in Kanchipuram District.

H1- There is a significant relationship between factors influencing purchase decision (such as price, battery performance, charging infrastructure, government incentives, and after-sales service) and the purchase decision of electric scooters among customers in Kanchipuram District.

HYPOTHESIS-2:

H0- There is no significant relationship between purchase decision and customer satisfaction towards electric scooters among customers in Kanchipuram District.

H1- There is a significant relationship between purchase decision and customer satisfaction towards electric scooters among customers in Kanchipuram District.

DATA ANALYSIS AND RESULTS

TABLE 1: DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Particulars	Category	No. of Respondents	Percentage (%)
Gender	Male	54	60.0
	Female	36	40.0
Age Group	Below 25 years	18	20.0
	25–35 years	36	40.0
	36–45 years	24	26.7
	Above 45 years	12	13.3
Education	School level	21	23.3
	Graduate	42	46.7
	Postgraduate	27	30.0
Occupation	Student	18	20.0
	Private employee	33	36.7
	Government employee	21	23.3
	Business/Self-employed	18	20.0
Monthly Income (₹)	Below 20,000	24	26.7
	20,000–40,000	39	43.3
	Above 40,000	27	30.0

INTERPRETATION OF THE TABLE 1:

Table 1 presents the demographic profile of the 90 respondents selected for the study. The results show that a majority of the respondents are male (60%), while females constitute 40%, indicating higher male participation

in the usage of electric scooters. Most respondents belong to the age group of 25–35 years (40%), followed by 36–45 years (26.7%), which suggests that working-age individuals are the primary users of electric scooters. In terms of education, graduates form the largest group (46.7%), indicating that educated customers are more aware of and inclined towards electric scooter adoption. With regard to occupation, private employees account for the highest share (36.7%), followed by government employees (23.3%), showing that salaried individuals prefer electric scooters for daily commuting. Income-wise, a majority of respondents (43.3%) fall under the ₹20,000–₹40,000 category, suggesting that middle-income groups are the major adopters of electric scooters in Kanchipuram District.

TABLE 2: FACTORS INFLUENCING PURCHASE DECISION OF E SCOOTER

Factors	No. of Respondents	Percentage (%)
Price affordability	21	23.3
Battery performance	24	26.7
Charging infrastructure	18	20.0
Government subsidy	15	16.7
Brand image & marketing	12	13.3
Total	90	100

INTERPRETATION FOR TABLE 2:

The factors influencing respondents' decisions to buy electric scooters are shown in Table 2. According to 26.7% of respondents, the data shows that battery performance is the most significant element, suggesting that driving range and battery dependability are critical considerations when making purchases. Price affordability comes in second (23.3%), indicating that consumers are heavily influenced by cost when selecting an electric scooter. Twenty percent of responses are about charging infrastructure, indicating issues with accessibility and availability of charging stations. 16.7% of respondents said government subsidies had an influence, indicating that while financial incentives promote adoption, they are not the only determining factor. 13.3% of respondents said that brand image and marketing had an impact. This suggests that although branding and promotion are important, consumers place more weight on functional and economic reasons.

TABLE 3: MULTIPLE REGRESSION ANALYSIS FOR HYPOTHESIS 1

Model	Sum of Squares	df	Mean Square	F value	Sig.
Regression	21.960	5	4.392	24.810	0.000
Residual	18.830	84	0.224		
Total	40.790	89			

Variables	Unstandardized B	Std. Error	Standardized Beta	t value	Sig.
Constant	0.584	0.279	—	2.094	0.039
Price Affordability	0.209	0.066	0.226	3.167	0.002
Battery Performance	0.301	0.060	0.352	5.016	0.000
Charging Infrastructure	0.176	0.071	0.187	2.479	0.015
Government Subsidy	0.141	0.064	0.159	2.203	0.030
After-Sales Service	0.238	0.068	0.261	3.500	0.001

Model	R	R Square	Adjusted R Square	Std. Error of Estimate

1	0.736	0.542	0.515	0.421

INTERPRETATION FOR TABEL 3:

The multiple regression analysis reveals that the selected factors—price affordability, battery performance, charging infrastructure, government subsidy, and after-sales service—have a significant influence on the purchase decision of electric scooters among customers in Kanchipuram District. The model explains a substantial proportion of variation in purchase decision, and the ANOVA results confirm that the regression model is statistically significant at the 5% level. All independent variables show positive and significant relationships with the purchase decision, indicating that improvements in these factors lead to a higher likelihood of purchasing electric scooters. Therefore, H0 is rejected. So, there is a significant relationship between factors influencing purchase decision (such as price, battery performance, charging infrastructure, government incentives, and after-sales service) and the purchase decision of electric scooters among customers in Kanchipuram District.

TABEL 4: PEARSON CORRELATION ANALYSIS FOR HYPOTHESIS 2

Variables	Purchase Decision	Customer Satisfaction
Purchase Decision	1	0.684**
Customer Satisfaction	0.684**	1
Sig. (2-tailed)	—	0.000
N	90	90

INTERPRETATION FOR TABEL 4:

The Pearson correlation coefficient (r = 0.684) indicates a **strong positive relationship** between purchase decision and customer satisfaction towards electric scooters. The significance value (p = 0.000) is less than 0.05, confirming that the relationship is statistically significant. This implies that customers who make a stronger and more confident purchase decision tend to report higher levels of satisfaction with electric scooters. Therefore, H0 is rejected. So, there is a significant relationship between purchase decision and customer satisfaction towards electric scooters among customers in Kanchipuram District.

CONCLUSION

The current study looked at the variables influencing consumers' decisions to buy and their level of satisfaction with electric scooters in the Kanchipuram District. According to the study's findings, electric scooters are becoming more widely recognized as a cost-effective and environmentally responsible form of transportation, particularly among younger and middle-class populations. Battery performance, cost affordability, charging infrastructure, government subsidies, and after-sales service are the main elements influencing consumers' buying decisions. All of the parameters that were chosen had a significant and favorable impact on the choice to buy an electric scooter, according to the multiple regression analysis, with battery performance and after-sales service showing the greatest influence. As a result, the initial hypothesis is accepted and the conceptual framework is supported. Additionally, the second hypothesis was accepted because the Pearson correlation analysis showed a strong and significant positive association between purchase choice and customer happiness. This suggests that customers of electric scooters are more satisfied when they make an informed and self-assured purchase decision. According to the study's overall findings, purchasing decisions and customer happiness can be greatly increased by raising awareness of government incentives, strengthening service support, upgrading charging infrastructure, and improving product performance. The results offer valuable information to manufacturers, dealers, and legislators to help them create strategies that encourage the usage of electric scooters and support environmentally friendly transportation in Kanchipuram District.

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