

Customer Satisfaction Towards E-Bikes In Nagercoil City

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Cite this paper as: Sakthivel R.U , Dr. S. Memukhan Gnanamoni (2024) Customer Satisfaction Towards E-Bikes In Nagercoil City .*Frontiers in Health Informatics, Vol.13, No.4*, 8210-8216

ABSTRACT:

Electric bikes (e-bikes) have gained increasing popularity in urban areas due to their eco-friendly nature, cost-effectiveness, and convenience. In developing regions like Nagercoil, the adoption of e-bikes is steadily growing as consumers seek alternative modes of transportation to reduce fuel expenses and environmental impact. Customer satisfaction is an important factor that determines the success of any product or service. In recent years, electric bikes have emerged as a popular mode of transportation due to increasing fuel prices and growing environmental awareness. E-bikes are energy-efficient, cost-effective, and environmentally friendly alternatives to conventional fuel-based vehicles. In India, the demand for electric vehicles is rising rapidly, especially in urban and semi-urban areas. In cities like Nagercoil, consumers are gradually shifting towards e-bikes due to their low maintenance cost and ease of use. Customer satisfaction depends on various factors such as battery performance, price, design, mileage, and after-sales service. Therefore, it is essential to study the satisfaction level of customers towards e-bikes to understand their preferences and improve the quality of products and services. This study aims to analyze the level of customer satisfaction towards e-bikes in Nagercoil city. The study is based on both primary and secondary data. Primary data were collected from 45 respondents using a structured questionnaire through a convenient sampling method. The collected data were analyzed using statistical tools such as Percentage analysis, Garrett Ranking and Chi-square test.

Keywords: Electric Vehicles, E-Bikes, Brands and Customer Satisfaction.

INTRODUCTION

Electric bikes (e-bikes) have emerged as an innovative and sustainable mode of transportation in recent years. With the increasing concerns over environmental pollution and rising fuel costs, e-bikes offer an eco-friendly alternative to conventional vehicles. These bikes operate using rechargeable batteries and produce zero emissions, making them an important solution for reducing carbon footprint and promoting green mobility. Their ease of use and cost efficiency have contributed to their growing popularity among consumers. In India, the adoption of e-bikes has gained momentum due to supportive government policies, technological advancements, and increasing awareness about environmental conservation. E-bikes are particularly suitable for short-distance travel and daily commuting, especially in urban and semi-urban areas. They require low maintenance compared to fuel-powered vehicles and are affordable in the long run. As a result, many individuals are shifting towards e-bikes as a convenient and economical mode of transport.

In cities like Nagercoil, the demand for e-bikes is steadily increasing. Factors such as traffic congestion, rising petrol prices, and the need for efficient mobility have encouraged people to adopt electric vehicles. E-bikes are widely used by students, employees, and small business owners for their daily commuting needs. Their compact design and user-friendly features make them highly suitable for local travel within the city. Customer satisfaction plays a crucial role in determining the success and acceptance of e-bikes in the market. Various factors such as battery life, charging time, cost, design, and after-sales service influence the satisfaction level of users. Understanding customer perception and satisfaction towards e-bikes helps manufacturers and policymakers improve the quality and accessibility of these vehicles. Therefore, studying customer satisfaction towards e-bikes is essential to promote their widespread adoption and ensure sustainable transportation development.

OBJECTIVE OF THE STUDY

The main objective of the study is to analyze the level of customer satisfaction towards e-bikes in Nagercoil city.

METHODOLOGY

Sources of Data

The study is based on both primary and secondary data. Primary data were collected through a structured questionnaire, and secondary data were collected from books, journals, and websites.

Sampling Design

To analyze the level of customer satisfaction towards e-bikes in Nagercoil city a total of 45 respondents were selected using a convenient sampling method.

Statistical Tools Used

The collected data were analyzed using Percentage Analysis and Chi-square Test.

DATA ANALYSIS AND INTERPRETATION

The analysis and interpretation of data form an essential part of any research study, as they help in drawing meaningful conclusions from the collected information. This section provides a clear picture of customer preferences, usage patterns, and satisfaction levels towards e-bikes. It helps in identifying the major factors influencing customer satisfaction and provides a basis for drawing conclusions and suggesting improvements.

Age of the Respondents

The researcher attempted to examine the age composition of the respondents in order to understand their demographic characteristics and its impact on the usage of e-bikes in Nagercoil. The details are presented in the following table.

Table: 1 Age of the Respondents

Sl. No	Age	No. of Respondents	Percentage
1	Up to 25	12	26.7
2	26 – 35	18	40
3	36 – 45	09	20
4	Above 45	06	13.3
	Total	45	100

Source: Primary Data

It is inferred from the above table that out of 45 respondents, 12 (26.7 percent) belong to the age group of up to 25 years, 18 (40 percent) of the respondents belong to the age group of 26–35 years, 9 (20 percent) of them belong to the age group of 36–45 years, and the remaining 6 (13.3 percent) belong to the age group of above 45 years. It is clear that the majority of the respondents fall under the age group of 26–35 years.

Gender of the Respondents

The gender composition of the respondents is analyzed to understand its impact on the usage pattern of e-bikes in Nagercoil. The details are presented below.

Table: 2 Gender of the Respondents

Sl. No	Gender	No. of Respondents	Percentage
1	Male	28	62.2
2	Female	17	37.8
	Total	45	100

Source: Primary Data

The above table shows that out of 45 respondents, 28 (62.2 percent) are male and 17 (37.8 percent) are female. It is clear that the majority of the respondents are male, indicating that male respondents have a higher level of participation in the usage of e-bikes in Nagercoil.

Marital Status of the Respondents

An attempt has been made to classify the respondents based on their marital status to understand its role in influencing their use of e-bikes in Nagercoil. The details are shown in the following table.

Table: 3 Marital Status of the Respondents

Sl. No	Marital Status	No. of Respondents	Percentage
1	Married	36	80
2	Unmarried	09	20
	Total	45	100

Source: Primary Data

It is clear from the above table that 36(80 percent) of the sample respondents are married and the remaining 9(20 percent) of them are unmarried.

Type of Family of the Respondents

The type of family of the sample E-bike users is also considered for the study since it plays a significant role in their satisfaction level. The classification of the respondents on the above basis is presented in the following table.

Table: 4 Type of Family of the Respondents

Sl. No	Type of Family	No. of Respondents	Percentage
1	Nuclear	30	66.7
2	Joint	15	33.3
	Total	45	100

Source: Primary Data

From the above table it is revealed that 30(66.7 percent) of the respondents belongs to nuclear family and the remaining 15(33.3 percent) of them belongs to joint family.

Educational Qualification of the Respondents

Educational qualification is another important factors considered to analyze the customer satisfaction towards E-bikes in the study area. The following table depicts the classification of the customers on the basis of their educational qualification.

Table: 5 Educational Qualification of the Respondents

Sl. No.	Qualification	No. of Respondents	Percentage
1	School Level	07	15.6
2	Undergraduate	21	46.7
3	Postgraduate	11	24.4
4	Others	06	13.3
	Total	45	100

Source: Primary Data

It is clear from the above table that 7(15.6percent) of the respondents are educated up to school level. 21(46.7 percent) of them are undergraduates, 11(24.4 percent) of them are postgraduates and the remaining 6(13.3 percent) of the respondents are having other qualifications.

Occupation of the Respondents

Occupation of a person decides the buying behaviour and the satisfaction level towards a product. Hence the occupation of the respondents also analysed and presented in the following table.

Table: 6 Occupation of the Respondents

Sl. No	Occupation	No. of Respondents	Percentage
1	Self Employed	07	15.6
2	Private Employee	29	64.4
3	Government Employee	06	13.3
4	Others	03	6.7
	Total	45	100

Source: Primary Data

The above table reveals that 7(15.6 percent) of the respondents are self-employed, 29(64.40 percent) of them are private employee, 6(13.3 percent) of the respondents are government employee and the remaining 3(6.7 percent) of them comes under other categories such as housewife, students etc.

Monthly Income of the Respondents

The monthly income is another important factor which influence the expenditure pattern and hence it is also considered for the study. The monthly income wise classification of the sample respondents is given in the following table.

Table: 7 Monthly Income of the Respondents

Sl. No	Monthly Income	No. of Respondents	Percentage
1	Up to 25,000	13	28.9
2	25,001 – 50,000	16	35.6
3	50,001 – 75,000	12	26.6
4	Above 75,000	04	8.9
	Total	45	100

Source: Primary Data

It is inferred from the above table that out of 45 respondents 13(28.9 percent) of them are earning up to 25,000 per month. 16(35.6 percent) of them are earning 25,001 – 50,000, 12(26.6 percent) of them are earning 50,001 – 75,000 per month and the remaining 4(8.9 percent) of the respondents are earning Above 75,000 per month.

Years of Using E-Bikes

The researcher further collected the details regarding the years of using E-bikes and the results are presented in the following table.

Table: 8 Years of Using E-Bikes

Sl. No	Years of Usage	No. of Respondents	Percentage
1	Less than 1 year	11	24.4
2	1 – 2 years	17	37.8
3	3 – 5 years	10	22.2
4	Above 5 years	07	15.6
	Total	45	100

Source: Primary Data

The above table reveals that 11(24.2 percent) of the respondents are using E-bikes for less than 1 year, 17(37.8 percent) of them are using 1 – 2 years, 10(22.2 percent) of the respondents are using E-bikes for 3 – 5 years and the remaining 7 (15.6 percent) of them are using E-bikes for above 5 years.

E-Bike Used by the respondents

There are many brands of E-bikes available and the respondents are classified on the basis of the E-bikes used by them. The classification of the respondents on the above basis is given in the following table.

Table: 9 E-Bike Used by the respondents

Sl. No	Brand of E-Bike	No. of Respondents	Percentage
1	Ola Electric	12	26.7
2	Ather Energy	09	20
3	Hero Electric	08	17.8
4	TVS iQube	07	15.5
5	Others	09	20
	Total	45	100

Source: Primary Data

The above table infers that 12(26.7 percent) of the respondents are using Ola electric, 9(20 percent) of them are using Ather energy, 8(17.8 percent) of the respondents are using Hero electric, 7(15.5 percent) of the respondents are using TVS iQube and the remaining 9(20percent) of the respondents are sing other E-bikes.

Type of E-Bike Usage

The researcher also classified the sample customers of E-bikes on the basis of the type of usage of the E-bikes and presented in the following table.

Table: 10 Type of E-Bike Usage

Sl. No	Usage Type	No. of Respondents	Percentage
1	Personal	26	57.8
2	Commercial	11	24.4
3	Both	08	17.8
	Total	45	100

Source: Primary Data

It is revealed from the above table that 26(57.8 percent) of the respondents are using E-bikes for personal purpose, 11(24.4 percent) of them are using for commercial purpose and the remaining 8(17.8 percent) of the respondents are using E-bike for both personal and commercial purpose.

Level of Satisfaction of the respondents towards E-bikes

The opinion of the respondents about their level of satisfaction towards the E-bikes used by them also gathered by the researcher and the opinion are given in the following table.

Table: 11 Level of Satisfaction of the respondents towards E-bikes

Sl. No	Level	No. of Respondents	Percentage
1	High	18	40
2	Medium	20	44.4
3	Low	07	15.6
	Total	45	100

Source: Primary Data

The above table shows that 18(40percent) of the sample respondents are highly satisfied with the E-bikes, 20(44.4 percent) of them are satisfied medium level and the remaining 7(15.6 percent)of them are satisfied low level towards E-bikes.

Association between demographic factors and level of satisfaction

An attempt was made to analyse the association between demographic factors and level of satisfaction of the respondents toward E-bikes in Nagercoil city by adopting Chi-square and presented as follows.

Age and Level of Satisfaction

The Chi-square test was applied to examine whether there is a significant relationship between age of the respondents and their level of satisfaction towards e-bikes and the result is given in the following table.

Table: 12 Age and Level of Satisfaction

Chi-square	d.f	Table Value	Inference
13.62	6	12.59	Significant

Source: Computed Data

The calculated Chi-square value is 13.62, which is higher than the table value of 12.59 at 6 degrees of freedom and 5 percent level of significance. Since the calculated value exceeds the table value, the null hypothesis is rejected. Therefore, it is concluded that there is a significant relationship between age and the level of satisfaction towards e-bikes.

Gender and Level of Satisfaction

An analysis was made to know the association between gender of the respondents and their level of satisfaction towards E-bikes by using Chi-square test and the result is presented in the below table.

Table: 13 Gender and Level of Satisfaction

Chi-square	d.f	Table Value	Inference
6.45	2	5.99	Significant

Source: Computed Data

The above table shows that the calculated Chi-square value is 6.45, which is higher than the table value of 5.99 at 2 degrees of freedom and 5 percent level of significance. Since the calculated value exceeds the table value, the null hypothesis is rejected. Therefore, it is concluded that there is a significant relationship between gender and the level of satisfaction towards e-bikes.

Educational qualification and Level of Satisfaction

The Chi-square test was applied to examine whether there is a significant relationship between educational qualification of the respondents and their level of satisfaction towards e-bikes and the result is given in the following table.

Table: 12 Educational qualification and Level of Satisfaction

Chi-square	d.f	Table Value	Inference
13.10	6	12.59	Significant

Source: Computed Data

The calculated Chi-square value is 13.10, which is higher than the table value of 12.59 at 6 degrees of freedom and 5 percent level of significance. Since the calculated value exceeds the table value, the null hypothesis is rejected. Therefore, it is concluded that there is a significant relationship between educational qualification and the level of satisfaction towards e-bikes.

FINDINGS OF THE STUDY

The major findings of the study are:

The researcher found out that 18 (40 percent) of the respondents belong to the age group of 26–35 years.

From the total 45 respondents majority 28 (62.2 percent) of them are male.

Majority 36 (80 percent) of the respondents are married.

It is found that most 21 (46.7 percent) of the respondents are undergraduates.

Regarding the type of family, 30 (66.7 percent) of the respondents belong to nuclear families.

It is observed that 29 (64.4 percent) of the respondents are private employees.

The study reveals that 16 (35.6 percent) of the respondents earn a monthly income between Rs. 25,001 – 50,000.

It is found that 17 (37.8 percent) of the respondents have been using e-bikes for 1–2 years, followed by 11 (24.4 percent) using for less than 1 year.

Regarding the brand of e-bikes, 12 (26.7 percent) of the respondents use Ola Electric, while 9 (20 percent) use Ather Energy and other brands.

It is observed that 26 (57.8 percent) of the respondents use e-bikes for personal purposes, while 11 (24.4 percent) use them for commercial purposes.

The study reveals that 20 (44.4 percent) of the respondents have a medium level of satisfaction, while 18 (40 percent) have a high level of satisfaction.

The Chi-square analysis indicates that there is a significant association between the age, gender and educational qualification of the respondents and level of satisfaction towards e-bikes.

CONCLUSION

E-bikes are gaining popularity among consumers in Nagercoil due to their affordability and eco-friendly nature. The study reveals that most customers are moderately satisfied with their e-bikes, and battery performance plays a crucial role in determining satisfaction. The study also highlights that demographic factors such as gender and education influence satisfaction levels. It is suggested that manufacturers should focus on improving battery efficiency, charging infrastructure, and after-sales services to enhance customer satisfaction. Promoting awareness and providing government incentives can further encourage the adoption of e-bikes..

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