

# A Study on Customer Satisfaction of Electric Scooters with Special Reference to Women Customers in Urban Areas

Author	Co-Author
Mary Abraham M.Com.,M.Phil.,B.Ed.,M.A.	Dr.K.Selvaraj M.Com., M.Phil., M.B.A., P.G.D.C.A., Ph.D.,
Ph.D Scholar	Associate Professor & Head,
	PG & Research Department of Commerce,
Mahendra Arts and Science College	Mahendra Arts and Science College[Autonomous],
Tiruchengode, Namakkal Dt. Tamilnadu. South India	Tiruchengode, Namakkal Dt. Tamilnadu, South India

# Abstract:

India is a land of traditions and customs. These customs and traditions loaded society have a strong control over women and their living conditions. For a long time, women were forced to be at home and restricted to lead a home maker life by assisting family members and rising the children. Thanks to the reformers and education activists along with government initiatives more women started going to schools, colleges and work. Finally modern cities have record number of women going to work. These working women as well as the home makers depend more on the personal transportation rather than the public or group transportation options. As the Women started depending on the two wheelers for their personal as well as official purposes, there is huge rise in demand and consumption of the petrol two wheelers. This has led to a huge pollution addition to the existing air pollution and sound pollution. The innovation of electric scooters has helped a lot to women customers with its easy-to-handle comfort and non-dependence on traditional fuel have really attracted women customers. But there has to be some more knowledge and advancement is due to make the electric scooters a great reliable two-wheeler for women. The researcher wants to throw light on the factors that influence the satisfaction of women two-wheeler users and also lapses in the electric two wheelers which are remaining as a hurdle for its progress in Indian two-wheeler market.

Key Words: Electric Scooters, women customers, Air Pollution, Demand, Consumption

## Introduction:

When we compare the female customers with male customers there is huge difference in variety of aspects because the women customers are peculiar and highly influential. If they are satisfied with a particular product, they will definitely talk about that product to friends and family members and also insist them to go for such



product or service. That is the level of convincing control women have over friends and family members regarding a product to choose or not to choose. So, there is always a key role played by the women in the success or failure of the product in the market. Particularly in the matter of electric scooters as the women started using these two wheelers at a large scale in urban areas during the last decade. Women customers always be influenced by the features and easy maintenance but there are many lapses with the electric scooters which makes the large portion of female customers still stick on to the petrol vehicles. This kind of situation is experienced in India may be due to variety of reasons, particularly there may be lack of awareness and fear of electricity usage in the vehicle charging. Electric scooters are the changing agents to the modern urban pollution and highly fuel dependent expensive two-wheeler transportation of the urban areas. Irrespective of the income level of users, more people are buying two wheelers in cities.

## Meaning of Electric Scooter:

An electric scooter is a two-wheeler which is run by one or two motors powered by a rechargeable battery and a step-through bike frame.

A step-through bike frame is without horizontal top tube. The tube is either curved or not curved but definitely it will be lower in height in comparison with the traditional bikes

These electric scooters depend on electrically charged battery for its running instead of traditional fuels like petrol or diesel.

# Purposes for which two wheelers are used by women in urban areas

1.For completing house hold needs like shopping, dropping and pickup of the children to schools and colleges.

- 2. Visiting hospitals and medical shops.
- 3. To visit bank and insurance offices
- 4. To go to worshipping places like temples, churches and mosques.
- 5.To visit friends and family members
- 6.To pay utility bills like electricity bills.
- 7.For going to work
- 8.College students' conveyance to college

## Need for the Study:

The usage of the electric vehicles is not up to the mark and very slow in sales.



The awareness about the electric scooters is very limited or zero.

Petrol two-wheeler users are very reluctant to switch to electric scooters.

Women customers are not much worried about the role of petrol vehicles causing for the air pollution and sound pollution.

High illiteracy is causing for the low level of awareness.

## Hypothesis:

There is a strong relationship between the women customers and their educational qualifications and awareness about the electric scooters.

Multiple factors have a role to play in deciding the customer satisfaction with regarding the electric vehicles purchase and usage.

### Scope of the Study

This research is completely focused only on women customers living in urban areas and their satisfaction level with regarding the electric two wheelers purchase and usage. Research restricted to the two wheelers users (women) and their preferences regarding the electrical scooters and utility level of the same.

The overall focus is on the electric scooters' usage and the choice of the women customers in the process of selecting the two wheelers.

#### **Objectives of the Study:**

1.To find out the level of awareness about the electric scooters in the urban women two-wheeler users.

2.To identify the prime factors of women customer satisfaction while using electric scooters.

3.To analyse the expectations of women customers regarding the electric scooters.

4.To highlight the weather adaptability of the electric scooters.

5.To investigate into the reliability of electric scooters in changing expectations of women customers and features that are need to be upgraded in electric scooters.

### **Review of Literature**

Chan, (2002) highlighted producers of two wheelers are motivated to produce electric two wheelers for pollution free future. It may be useful to control air pollution and to make the vehicle a routine user-friendly solution and build a green transportation.



Kalra, (2022) analysed the conditions of the customers going for the electric scooters and mentioned the expenses on capital and many more pulling factors for the progress of the electric vehicles sales and government incentives schemes in promoting the electric scooters.

Masurali.A, (2018), Highlighted that the transportation is the basis for the huge carbon monoxide emission to the environment. He argued that the electric vehicles will be best solution to reduce the pollution. Along with the manufacturers and sellers, governing bodies also should launch various schemes to encourage the usage and promote awareness about the electric scooters.

Janardan Prasad Kesari (2019), Explained about the difficulty for the government to go for tough rules and schemes to promote the electric scooters but it is a must for the country and to protect the environment and bio diversity. Awareness must be created in all the age groups of the society about the necessity to switch to vehicles that can minimise the pollution and create a clean transportation system.

# **Research Methodology:**

Researcher would like to investigate mainly into the various factors that contribute to the women customer satisfaction regarding the usage of electric vehicles particularly in urban areas. Due to various constraints and shortage of time researcher had decided to go for secondary data analysis for which data has been collected from various books, journals and articles already published and present across the different sources of data.

## Factors influencing the women customers satisfaction regarding the electric scooters

- 1.Fuel free movement
- 2.Easy to handle
- 3. Size and design that suits to urban traffic conditions
- 4.Pollution free environment.
- 5.Limited speed and safety on road
- 6.Economic benefits

## **Findings of the Research**

1.Number of electric scooters users are very less compared to petrol two-wheeler users.

2.Awareness in the women customers about electrical scooters is very minimal.

3.Existing two-wheeler users are very much hesitant to shift to the electrical scooter because of various reasons.

4.Petrol two-wheeler users are very much indifferent towards the air pollution caused by the carbon monoxide emission.



5. Women customers are not much calculative and aware of the advantages and disadvantages of the electric scooters.

6.Women customers feel worried and scared of the abnormal functioning of the electric scooters due to changes in weather.

7.Lack of knowledge and research skills in women has proved to be one of the big barriers for them to go for the electric scooters.

8.Battery charging time and the distance to which battery last also contributing for the dissatisfaction in women customers.

9.Lack of education is also has been highlighted reason for the women customers not to go for the electric scooters.

10. High expense on capital cost is also not encouraging women to go for electric scooters.

## Solutions:

1.Producers, sellers and government has to create awareness in all the city dwellers particularly women customers.

2.Sellers must bring more attractive price and schemes of sales with low down payment to encourage more women customers to go for the electric scooters.

3.Government should bring a policy initiative to make more people to go for the electric scooters.

4.Both governmental and non-governmental organisations must campaign about the pollution caused by the petrol two wheelers.

5.Students also must be created with awareness through incorporating lessons into syllabus about the disadvantages of petrol two wheelers and advantages of electric scooters in minimising air pollution.

6.Producers and sellers must be given subsidies and encouraging with the reduction in taxes to go for the production in high volume which may lead to slash in prices.

7.Producers must work on the battery life and charging time and also the distance that battery last and reliability equal to petrol vehicle.

8.Charging points and other infrastructure must be developed by the government to make the electric vehicles usage regular and comfortable.



# **Conclusion:**

Electric scooters will be a big relief to the government and various social organisations working to improve the environmental imbalance and go a long way to create a pollution free transportation and living conditions. In order to enhance the health and life span of the people living in urban areas who are exposed to the worst implications of the air pollution, all the women must start shifting to the electric vehicles and promote them in all the age groups to minimise the pollution. More than the men women always have a greater possibility in bringing a change in any aspect which they wished to see the difference, so with the level of women customers involvement and creating awareness definitely in due course of time India will see the urban areas with the lowest pollution and highest number of electric vehicles filled roads. Government and international funding agencies along with the media has got a greater role to play in creating the awareness about the usage of the electric vehicles and the highest need for understanding the seriousness of growing threats to the future of the nature and present and generations to come.

## References

 D.Vijayalakshmi et al (2015). "A study on customer satisfaction of selected branded two wheelers in south Coimbatore". International Journal of Multidisciplinary research and development. 2(4): pp 260-264.
Chan, C. (2002) The State of the Art of Electric and Hybrid Electric. Proceedings of the IEEE, 90

3. Muhammad Yousaf Iqbal, Tie Wang, Guoxing Li, Dongdong Chen, Mohammad Mahbubur Al-Nehari

A Study of Advanced Efficient Hybrid Electric Vehicles, Electric Propulsion and Energy Source

Journal of Power and Energy Engineering Vol.10 No.7, July 22, 2022

4. Yuan-Bin Yu, Qing-Nian Wang, Hai-Tao Min, Peng-Yu Wang, Chun-Guang Hao <u>Control strategy</u> <u>optimization using dynamic programming method for synergic electric system on hybrid electric vehicle</u> <u>Natural Science</u> Vol.1 No.3, December 15, 2009

5. Gopal, A.R., Park, W.Y., Witt, M. and Phadke, A. (2018) Hybrid-and Battery-Electric Vehicles Offer Low-Cost Climate Benefits in China. Transportation Research Part D: Transport and Environment, 62, 362-371. <u>https://doi.org/10.1016/j.trd.2018.03.014</u>

6. Dr.K.Selvaraju, Mr.C.S.Darshan, Mr.S.Dharmeshwaran, Mr.S.Dileepkumar(2021). A Study on Customer Satisfaction on Electric Vehicle Buying, Shodhsamhita :Journal of Fundamental &Comparative Research Vol. vii, no. 12(iv) : 2021issn: 2277-7067 journal of kavi kula guru kalidas sanskrit university, ramtek page | 19



7. Battery technology handbook. Edited by H. A. Kiehne. New York, M. Dekker, c1989. 519 p. (Electrical engineering and electronics, no. 60Crompton, T. R. Battery reference book. London, Boston, Butterworths, 1990. 1 v. (various pages)