# CUSTOMER PERCEPTION TOWARDS ELECTRIC TWO WHEELERS IN THIRUVANANTHAPURAM

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**Abstract**

"Act now for a greener tomorrow". Electric vehicles are a revolution in transportation systems. In modern era, Global warming and rate of fuel is a main problem. Climate change and growing air pollution reduce through electric vehicles. Vehicles make to cover long-distance easier and less exhausting, improving stand of living. Electric Vehicles not only facilitates eliminate global warming but also enables the diversification of the transportations sector. The Electric Vehicles are very emerging trend in the current stage of life because the population of the country is increasing rapidly. This will create need for more vehicles and the need of more vehicles will increase the demand for fuel. The advancement that the electric vehicle industry has seen in recent years is not only extremely introduced, but highly necessary in light of the increasing global greenhouse gas levels. This paper discusses the perception of customers towards electric two wheelers in Thiruvananthapuram. Percentage, chi-square test are used statistical tool for analyze the primary data. The data has been collected from the E2W owners and asked about their expectation, awareness and perception. Most of the customers perceived awareness about electric two wheelers and their satisfaction level is comparative low.

**Keywords:-** E2W, Eco-friendly, Customer Happiness, Global Warming, Perception.

Electric vehicles are functioned by an electric motor that draws electricity from a battery and is able of being charged from an external source. Vehicles design varies greatly to suit a range of different purposes. India's government is almost for a more rapidly adoption of electric vehicles-hoping at least 15 per cent of all vehicles on the road will be electric in five years starting 2018- to deal with the toxic air pollution in its cities and curb carbon emission from fossil fuels.

India is the second largest manufacturer of two wheelers in the world. In the financial year (FY) 2023-24, India sold 910,930 E2Ws (Electric two wheelers), which is a 33.3 per cent growth

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from the previous year. In March 2024, India got a record - high E2W sales were a 50 per cent increase from the preceding year. As global warming and fuel values are increasing day by day, for many reasons currently many countries are changing their petrol two wheelers to electric two wheelers. Electric vehicles are having advanced technology for attaining a sustainable transport sector in the future due to their very low to zero carbon emission, low noise, high efficiency and flexibility in great operation and integration. Main objective of every business is to maintain customer happiness. The customer perception have tainted towards two wheelers that keep count increase on technology, fuel efficiency, safety, engine capacity, service benefits, style, design and aesthetic appeal, etc. This study is focusing on the customer perception towards electric two wheelers in Thiruvananthapuram.

**Review of Literature**

C. Shilpa Rao, P. Swathi, Rakhi Menon (2024) study about E-Mobility Evolution: Shaping Perception and Driving Customer Behaviour. The objective of this empirical study is to gain an understanding of customer perceptions and satisfaction regarding EV. To reduce dependence on Oil, Mitigate greenhouse gas emissions and enhance air quality EV are receiving significant media coverage. Governments worldwide are implementing rules to promote their use. EV relies on electricity rather than fossil fuels such as petrol or diesel to recharge their batteries. Electric car charging is more cost-efficient than buying petrol or diesel due to its higher efficiency and reduced power expenses.

Athulya Vinod and Jeffy Patric (2023) studied customer's preference toward electric vehicles with special reference to the Cochin Corporation. The study results show that in India, there is a need for energy transition in automobiles due to fossil resource depletion and steady rise in fuel prices. The Government had steps to reduce pollution levels by promoting electric vehicles and providing purchase subsidies. The Government has relaxed FDI rules to promote output. Several new brands are introducing EVs in India. The Government and manufacturers should work together to construct the infrastructure and create a favorable climate for electric vehicles.

Bindhu R, Shwetha R (2023) studied customer satisfaction toward Electric Vehicle with special reference to Tumkur District. The adoption of EVs has gained significant attention due to its potential to mitigate environmental concerns and reduce dependency on fossil fuels. The study investigates customer satisfaction with electric vehicles within the context of Tumbur city. The research aims to indentify the factors influencing customer satisfaction with Electric Vehicles and assess their perception and experiences. Quantitative surveys and qualitative interviews were used to gather comprehensive insights. A structured questionnaire is administered to a diverse sample of Tumkur EV users to collect data on their satisfaction levels, driving patterns, charging infrastructure and overall ownership experience.

Dr. V Vidya and Renuga Devi R (2023) studied consumer preference and satisfaction toward EVs with special reference to Coimbatore City. EV industry

has seen in recent years is not only extremely welcomed but highly necessary in light of the increasing global greenhouse gas levels. As demonstrated within the economic, social and environmental analysis sections of the widespread adoption of electric-powered transportation in cost, gasoline and the vehicles that run on it are readily available, convenient and less costly.

Kalra (2022) studied about customers assumptions about electric vehicle. Our country's lack of suitable charging infrastructure is a major impediment to greater EV adoption. He also mentioned a comprehensive infrastructure that is in expensive, accessible and support all customers groups, along with a solid finance environment, government incentives, and technology developments are anticipated position the electric vehicle industry for major expansion over the next decade.

**Scope of the Study**

The present study focuses on "Customer Perception towards Electric Two-Wheelers in Thiruvananthapuram District. It helps to identify the awareness level of customers about electric scooters and also helps to find out the customer perception towards electric two-wheelers. The proposed study will use an interview schedule to study the issues. After this study, it was found that frequent increases in the fuel price made consumers prefer E2Ws because they are cheaper, and electric scooters are more suitable for rural and urban areas.

**Significance of the Study**

Many people believe that electric vehicles (EVs) are a potential way to combat urban air pollution and a major factor in the fight against global warming. Purchasing electric two wheelers empowers one through economic gains, technological advancement, or environmental impact. Kerala's electric future indicates the state's dedication to a future in which electric two wheelers are essential.

The purpose of this article is to collect the views, emotions, and perceptions regarding awareness of and tendency to purchase e-vehicles in order to preserve environmental sustainability. Customers' attitudes regarding electronic vehicles and their hopes for them in the near future are the main focus of this study. In order to ascertain whether consumers prefer fuel-powered or electrical vehicles, we have carried out a statistical analysis. Gaining a clear understanding of the customer's preferences and regards was significant.

**Objectives of the Study**

1. To find out problems faced by the Electronic two wheeler users.
2. To analyze the level of customer perception towards electric two wheelers.

**Hypotheses**

1. There is no significance relationship between age and satisfaction level of E2W users.
2. There is no significance relationship between occupation and satisfaction level of E2W users.

**Research Methodology**

The present study is a descriptive one based on both primary and secondary

data. Primary data have been collected through a well-structured questionnaire and personal interview from Thiruvananthapuram. Convenient sampling method has been adopted to select respondents. The sample size is 150 respondents for the purpose of the study. Required secondary data have been collected from the source like websites, various publications, reports, journals, books etc. Percentage, chi-square test are used as statistical tools to analyze the primary data.

**Analysis of Demographic Characteristics of Respondents**

Table 1 gives a clear idea about the socio-demographic characteristics viz age, gender religion, education qualification, occupation and monthly income of the respondents. The majority (56.6 per cent) of respondents are below 30 years of age. Most (60.7 per cent) of the respondents are male. A significant portion (45 per cent) identifies as Hindu. A large proportion (36.7 per cent) of the respondents has

**Table 1**

**Socio-Demographic Characteristics of Respondents (N=150)**

| Characteristics | Respondent (Percentage) |
|---|---|
| **Age (years)** | |
| Below 30 | 82(56.6) |
| 30-40 | 52(34.7) |
| Above 40 | 16(10.7) |
| **Gender** | |
| Male | 91(60.7) |
| Female | 59(39.3) |
| Others | - |
| **Religion** | |
| Hindu | 63(42) |
| Christian | 54(36) |
| Muslim | 33(22) |
| Others | - |
| **Education Qualification** | |
| Illiterate | 18(12) |
| Up to SSLC | 26(17.3) |
| Higher Secondary | 55(36.7) |
| Under Graduate | 29(19.3) |
| **Occupation** | |
| Private Job | 78(52) |
| Public/Government Job | 52(34.7) |
| Others | 20(13.3) |
| **Monthly Income** | |
| Upto 30,000 | 72(48) |
| 30,000 - 40,000 | 52(34.7) |
| Above 40,000 | 26(17.3) |

*Source: Primary data*

completed their education up to the higher secondary level. More than half (52 per cent) are employed in the private sector. Additionally, nearly half (48 per cent) of the respondents earn a monthly income of up to 30,000.

Table 2 shows that most of the respondents are satisfied (54.6 per cent) about their electronic two-wheelers and 45.4 per cent of respondents are not satisfied with their electronic vehicles. 26 per cent of respondents are told that electric vehicles will increase the demand for electricity. 43 per cent say that they have no necessary charging station for their vehicles. 32 per cent say that electric vehicles have a high cost. 27 per cent say that it has less performance. 18 per cent told that they got poor service from the show room. 76 per cent say that they prefer electric vehicles for their personal purposes. Most of the respondents recommend that there must be a need to reduce the cost of the electric vehicle, and they also recommend that there be a government subsidy to purchase the electric vehicles. They also recommend that it should have sufficient number of charging stations in major places. 26 per cent of electric vehicle holders recommend that there should be a need to improve the quality of service provided by the electric vehicle dealers.

Table 3 explains that the calculated chi-square value of age and satisfaction level of respondents about Electric Vehicle is less than the table value, hence the hypothesis is accepted. There is no

**Table 2**

**Analysis of Respondent's Regard about Electric Two wheelers**

| Characteristics | Variables | Respondents (Percentage) |
|---|---|---|
| **Satisfaction level** | Yes | 82(54.6) |
| | No | 68(45.4) |
| **Problems** | High Cost | 32(21.33) |
| | Less performance | 27(18) |
| | Increase the demand of electricity | 39(26) |
| | Poor servicing | 18(12) |
| | Lack of charging stations | 34(22.67) |
| **Preference to Purchase in future (Nature of Vehicle)** | Electric Vehicle | 76(50.33) |
| | Fuel Vehicle | 74(49.67) |
| **Further recommendations** | Reduce cost | 49(32.67) |
| | Provide Subsidies | 38(25.33) |
| | Place Charging Station | 37(24.67) |
| | Improve Service quality | 26(17.33) |

*Source: Primary data*

**Table 3**

**Relationship between Satisfaction level of beneficiaries and their Demographic Characteristics**

| Demographic Characteristics | Total | Satisfaction level of Respondents | | Chi-square Value | Table Value |
|---|---|---|---|---|---|
| | | Yes | No | | |
| **Age** | | | | | |
| Below 30 | 82(56.6) | 48(58.5) | 34(50) | 2.41 | 5.99 |
| 30-40 | 52(34.7) | 24(29.3) | 28(41.2) | | |
| Above 40 | 16(10.7) | 10(12.2) | 6(8.8) | | |
| **Occupation** | | | | | |
| Private job | 78(52) | 41(50) | 37(54.4) | 10.96 | 5.99 |
| Public/Government | 52(34.7) | 35(42.7) | 17(25) | | |
| Others | 20(13.3) | 6(7.3) | 14(20.6) | | |
| **Total** | 150 | 82 | 68 | | |

*Source: Primary data*

*Note: Figures in parenthesis indicates Percentage*

significant association between age and satisfaction level of respondents. The calculated chi-square value of occupation and satisfaction level of respondents about Electric Vehicle is more than the table value, hence the hypothesis is rejected. There is significant association between occupation and satisfaction level of respondents.

**Findings**

- Majority (56.6 per cent) of the respondents belong to the age group of below 30 years.
- Most (60.7 per cent) of the respondents are male.
- A significant portion (45 per cent) identifies as Hindu
- A large proportion (36.7 per cent) of the respondents has completed their education up to the higher secondary level.
- More than half (52 per cent) are employed in the private sector
- Nearly half (48 per cent) of the respondents have monthly income up to 30, 000.
- The majority (54.6 per cent) of the respondents are satisfied with their electric two wheelers.
- A portion (26 per cent) of the respondents says that electric vehicles will increase the electricity charge.
- The majority (50.33 per cent) of the respondents prefer electric vehicles for future purchase.
- A segment (32.67 per cent) of the respondents recommend that there should need to reduce the cost of the electric vehicles.
- There is no significant association between age and satisfaction level of respondents.

- There is significant association between occupation and satisfaction level of respondents.

**Suggestions and Conclusion**

In India, two wheeler industries are facing high competition. Indians are more conscious about eco-friendly life. Electric vehicles help to bring world in better status by reducing pollution at huge rate. It is possible through all automobile industries try to can change their production technology in eco- friendly way and can educate potential customers in the right way. It attracts youngsters of the society. E2W distributors need to create awareness and develop positive customer perception. Majority of the customer prefer electric two wheeler over petroleum two wheeler because it is very eco-friendly so less pollution is caused. Due to the frequent increase in the fuel price, consumer prefers E2W because it is cheaper. Electric scooters are more suitable for rural areas. Where the number of petrol bunks are not adequate. Awareness about the need of the customers in order to analyze and continuously improve the performance the product helps to increase the customer satisfaction level.

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