



# CONSUMER'S AWARENESS AND PERCEPTION TOWARDS ELECTRIC BIKE WITH SPECIAL REFERENCE TO BAGALKOT CITY

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## **Abstract**

In recent times, there has been a notable surge in the popularity of e-bikes as an eco-friendly alternative to traditional modes of transportation, particularly among urban commuters. With the advent of advanced technology, there has been a transformative shift in transportation and communication. Recognizing the urgency of the situation, automotive companies are striving to innovate vehicles that are no longer reliant on fossil fuels. Consequently, substantial investments have been made in research and development to introduce electric bikes. This research focuses on comprehending the perceptions of customers regarding electric two-wheelers in Bagalkot city. A total of 100 bike users participated in the study to scrutinize crucial factors influencing the purchase of electric bikes. It was found during the study that majority of the respondents are aware of the electric bikes and opined that electric bikes are suitable for local commute.

Keywords: Keywords: Electric bikes, customer perception

## **Introduction**

India being second largest populated and third largest road network connected country in the world. Two wheelers are the most preferred mode of primary transport in India. Unlike the conventional vehicles the electric vehicles run on electricity which helps to reduce the air pollution. Many countries in world are offering subsidies, tax rebates and free parking spaces and other benefits to attract the people to use the electric vehicles. On the other hand it also helps the countries to reduce the dependency on

the other countries for purchase of fuel. This helps the counties to achieve the economic sustainability. Indian central government and many state governments also provided the various benefits to promote the use of electric vehicles by the consumers.

## **Literature review**

**Ashish Agarwal (2014)** the research indicated a substantial growth potential in the electric vehicle industry. However, the initiation of this growth in India may take some time due to customers' reluctance to pay high prices. Additionally, customers in India express significant concerns regarding security and quality aspects.

**Pretty Bhalla (2018)** examined electric vehicle manufacturers, emphasizing the need for increased investment from the Government of India in fostering social acceptance of these vehicles. This entails creating additional infrastructural facilities to ensure that the public is well-informed about the environmental advantages they offer. The responsibility for advancing these efforts rests on the shoulders of both the government and manufacturers. This involves not only investing in the research and development of electric vehicles but also studying the perceptions of customers regarding their use.

**Kunal Dalvi(2020)** determined that the proposed system employing a hub motor at the front wheel surpasses existing systems. The introduced system represents an innovative approach aimed at enhancing the mileage of electric bikes. The continuous cycle of charging and discharging contributes to an extended

battery life, resulting in the vehicle's battery running for a longer duration compared to the current system.

**Statement of problem**

In India, electric vehicle industry is in growth stage. General public do have myths about the electric vehicles regarding the safety of the vehicles as many electric bikes caught fire when it was running and other similar situations. In reality electric vehicles are contributing in making emission free environment and they are economical also in customer perspective. The purpose of the study is to understand the customer awareness about electric bikes and their perception about the electric vehicles among the end users in the particular segment.

**Objectives of the study**

- To find out the customer awareness level towards electric bikes in Bagalkot city
- To understand the various factors considered by the customers during the purchase of electric bike.

**Scope of the study**

The study which is titled as “Consumer’s awareness and Perception towards Electric Bike with Special Reference to Bagalkot City “ aims at assessing the awareness level and perception of customers about electric vehicles. The study aims at bringing out the factors considered

during the buying of Electric Bike. The scope of the study confined to the users of two wheelers in Bagalkot city.

**Research Methodology**

**Research and Sampling Methods:**

The study adopted descriptive research and judgemental sampling technique.

**Sampling Size:**

Sample size used for the study is 100. Survey was conducted using a structured questionnaire to study the awareness and perception among the customers about two wheeler in Bagalkot city.

**Statistical Tools Used**

The primary data collected was analysed using Excel.

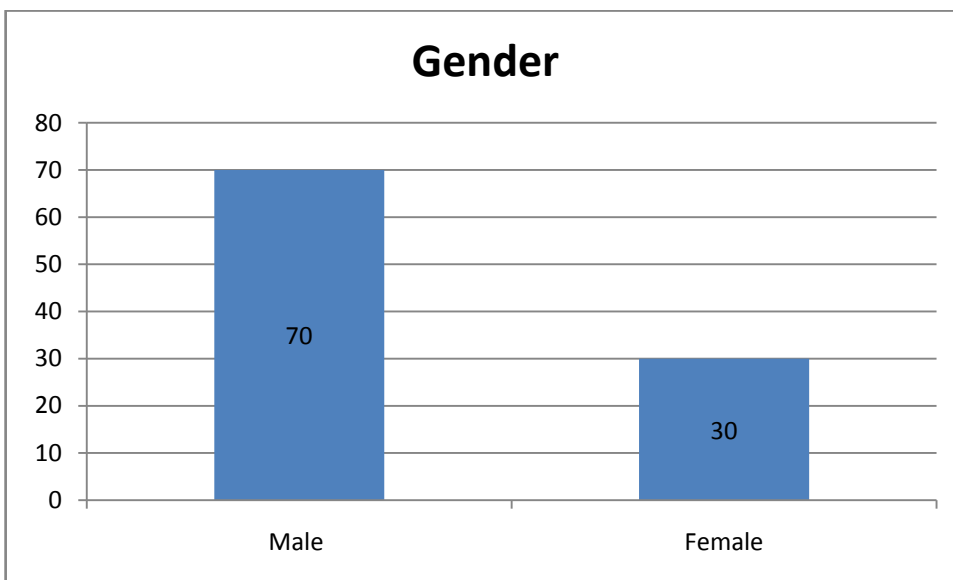
**DATA ANALYSIS AND INTERPRETATION**

The opinion of the respondents and the relevant information were collected through a questionnaire comprising of the awareness and perception factors. The gathered data underwent classification and tabulation, complemented by the application of specific statistical tools aligned with the study's objectives.

**Table No.1 Respondents gender**

Gender	Frequency
Male	70
Female	30

**Table No.1 Chart depicting respondents gender**



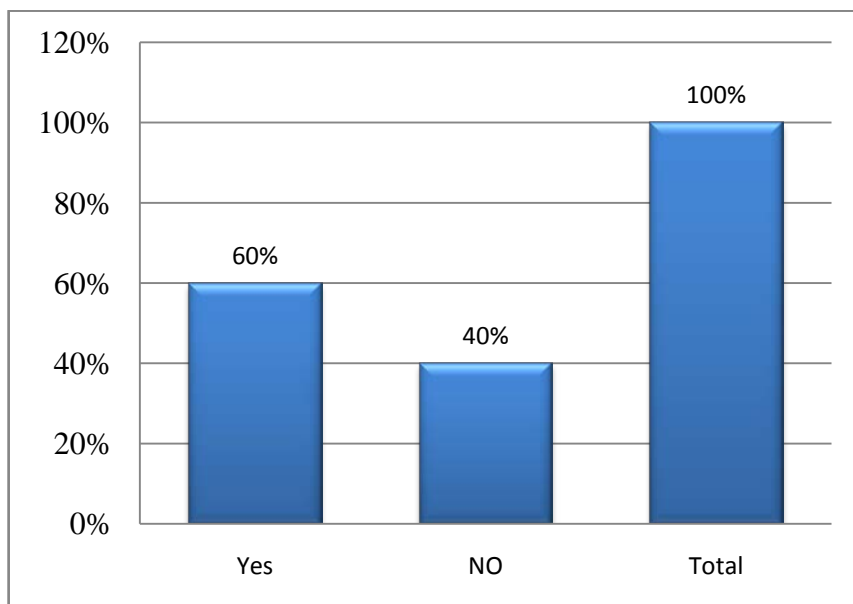
**Interpretation**

From the above it can be seen that out of the total respondents' majority are male (70%).

**Table No.2 Current two wheeler ownership status of respondents**

	No of Respondents	Percentage
Yes	60	60%
No	40	40%
Total	100	100%

**Chart depicting Current two wheeler ownership status of respondents**



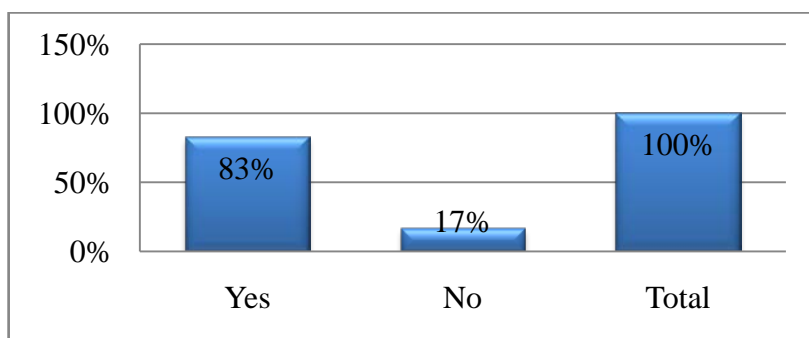
**Interpretation**

From the above chart, it can be seen that majority of the respondents have the two-wheelers (60%) .

**Table No.3 Awareness about electric bike**

	No of Respondents	Percentage
Yes	83	83%
No	17	17%
Total	100	100%

**Chart depicting the awareness about the electric vehicles among respondents**



**Interpretation**

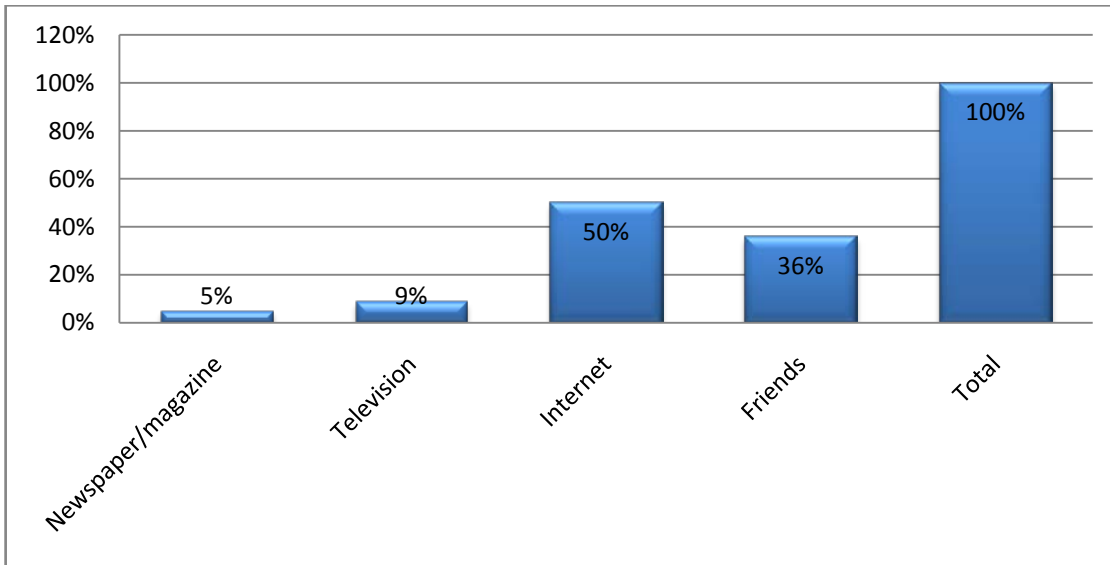
From the above diagram it can see that majority of the respondents are aware of electric vehicles (83%). It might be due to the brand endorsement by many of the companies in

special events, games, etc. Even government is also promoting the people to opt for most economical mode of commute; hence people are aware about the two wheeler electric vehicles

**Table No.4 How respondents got awareness about to wheeler electric vehicles**

	No of Respondents	Percentage
Newspaper/magazine	5	5%
Television	9	9%
Internet	50	50%
Friends	36	36%
Total	100	100%

**Chart depicting how respondents got awareness about to wheeler electric vehicles**



**Interpretation**

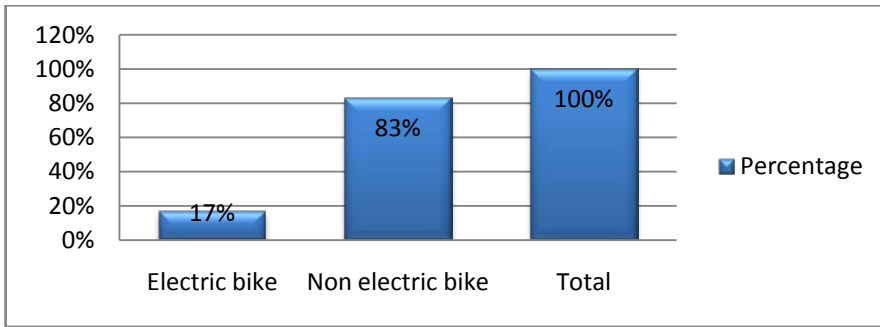
From the above chart, it can be seen that majority of the people are getting awareness about the two wheeler electric bike through internet due to excessive use of social media.

Even companies also tries to promote the the products in social media. Next to that respondents also get the information from their friends and in peer groups. Very few get awareness by use of newspaper and television

**Table No.5 Respondents current nature of bike utilization status**

	No of Respondents	Percentage
Electric bike	17	17%
Non-electric bike	83	83%
Total	100	100%

**Chart depicting Respondents current nature of bike utilization status**



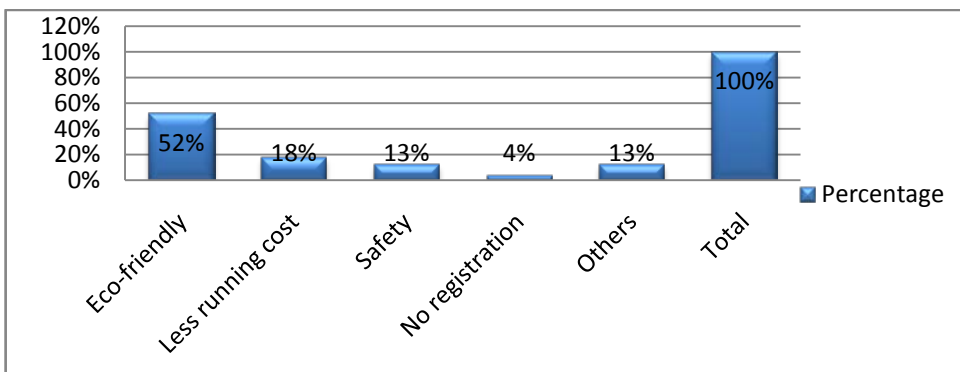
**Interpretation**

From the above chart, it can be analyzed that even though they are having awareness about the electric vehicles, majority of the respondents are not using electric vehicles. It might be due to these products are new in the market and might be due to the prices of the electric vehicles are getting costlier.

**Table No.6 Factors sounds appealing for respondents to buy Electric bikes**

	No of Respondents	Percentage
Eco-friendly	52	52%
Less running cost	18	18%
Safety	13	13%
No registration	4	4%
Others	13	13%
Total	100	100%

**Chart depicting Factors sounds appealing for respondents to buy Electric bikes**



**Interpretation**

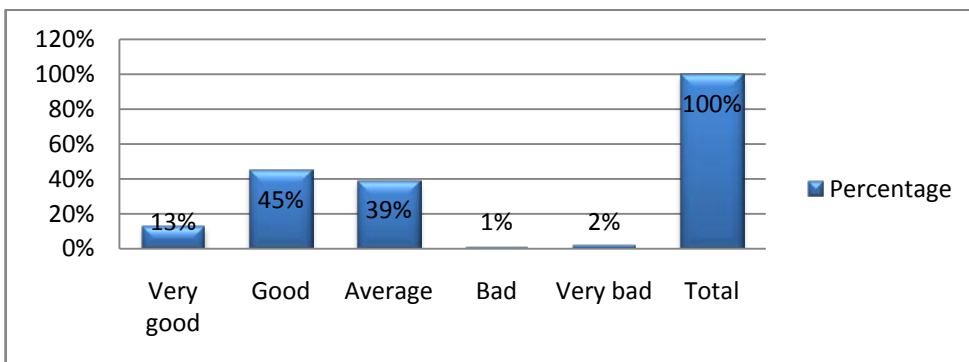
From the above chart, it can be seen that respondents prefer to buy electric vehicle because its eco-friendly. Even though the

running cost of the vehicle is comparatively lesser, the cost of vehicle at the time of purchase is very high. Only few (13%) of the respondents prefer to buy electric vehicle because of its' safety reason.

**Table No.7 Respondents opinion towards price, mileage, speed of electric bikes as compared to non-electric bikes**

	No of Respondents	Percentage
Very good	13	13%
Good	45	45%
Average	39	39%
Bad	1	1%
Very bad	2	2%
Total	100	100%

**Chart depicting respondent’s opinion towards price, mileage, speed of electric bikes as compared to non-electric bikes**



**Interpretation**

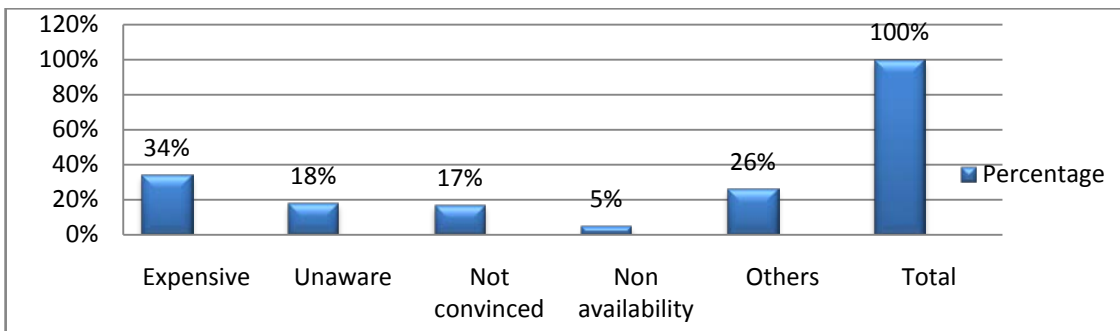
From the above chart it can be analysed that the respondents has positive agreement regarding the price, mileage, speed of the electric vehicles. It might be due to the strong research and development activities by the companies

where they are trying to provide the different features in electric vehicle segments at affordable costs and running cost of the vehicles are also cheaper compared to non electric vehicles.

**Table No.8 Factors those respondents think that prevents them from making the decision of purchasing the electric bikes**

	No of Respondents	Percentage
Expensive	34	34%
Unaware	18	18%
Not convinced	17	17%
Non availability	5	5%
Others	26	26%
Total	100	100%

**Chart depicting factors those respondents think that prevents them from making the decision of purchasing the electric bikes**



**Interpretation**

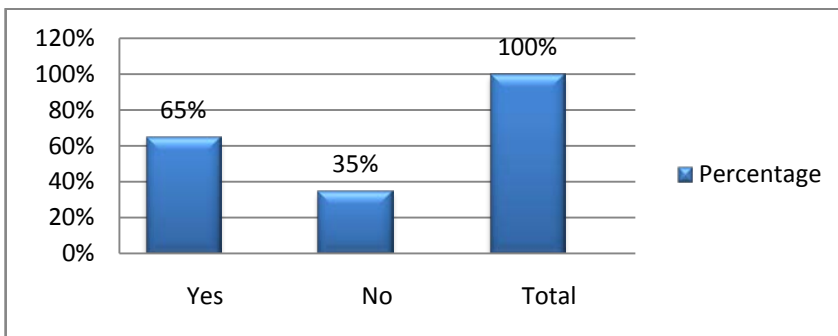
From the above chart it can be seen that majority of the respondents opined that electric vehicles are costlier when compared to non-electric vehicles and it's not suitable to travel

for longer and unplanned journey due to lack of charging stations availability in different locations. Few of the respondents are not at all aware about the utility of electric vehicles.

**Table No.9 After sales service availability affecting respondents purchasing decision of electric bikes**

	No of Respondents	Percentage
Yes	65	65%
No	35	35%
Total	100	100%

**Chart depicting after sales service availability affecting respondents purchasing decision of electric bikes**



**Interpretation**

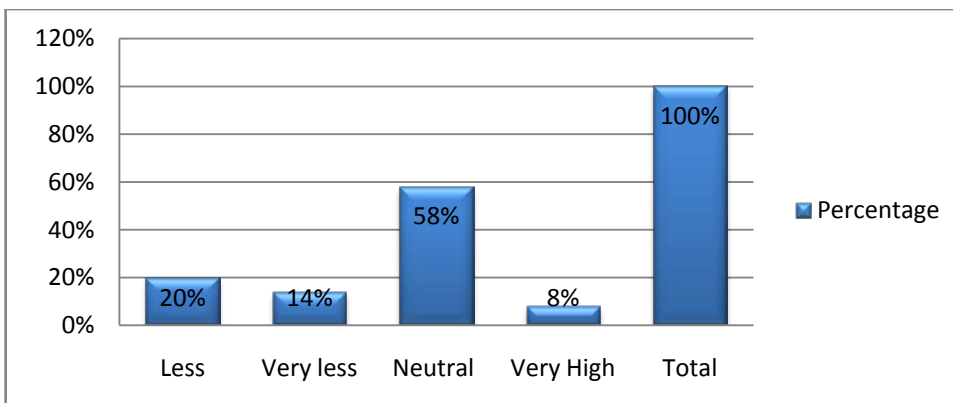
From the above chart it can be analysed that respondents expects the better after sales service after purchase. In majority cities electric vehicle showrooms are not available. Customer needs

to go to bigger cities for getting the electric vehicle service. This is also one of the reason where customers are not willing to buy electric vehicles.

**Table No.10 Respondents perception about the the benefits of Electric bikes**

	No of Respondents	Percentage
Less	20	20%
Very less	14	14%
Neutral	58	58%
Very High	8	8%
Total	100	100%

**Chart depicting Respondents perception about the the benefits of Electric bikes**



**Interpretation**

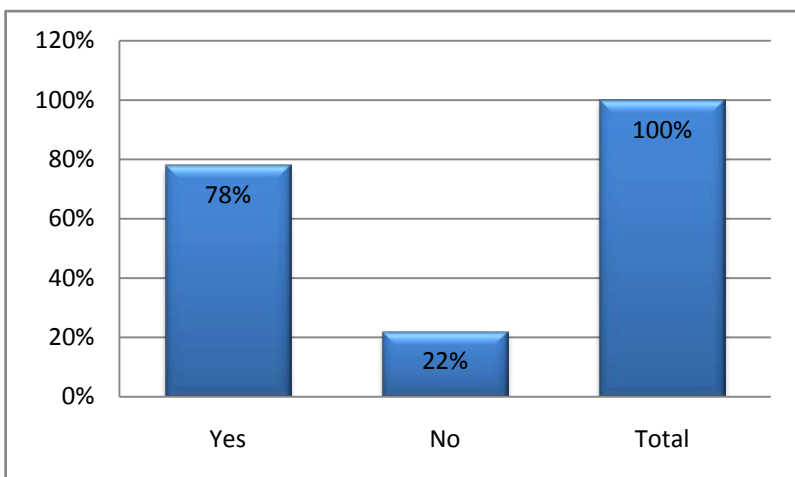
From the above chart it can be interpreted that customers are neither happy nor dissatisfied about the two wheeler electric vehicles because

majority of them has not purchased the vehicle. There are many myths about electric vehicles about its safety and durability and other aspects.

**Table No.11 Respondents willingness to purchase electric vehicle in near future**

	No of Respondents	Percentage
Yes	78	78%
No	22	22%
Total	100	100%

**Chart depicting respondent’s willingness to purchase electric vehicle in near future**



**Interpretation**

From the above chart it can be seen that respondents opined that they are willing to buy the electric vehicle in near future after understanding the benefits and utilities of electric vehicles. This shows that there is great opportunity for the companies to market their products in study area.

**Findings of the study**

- Out of the total respondents, majority is male (70%).
- 60% of the respondents were having the two wheelers at present out of total respondents.
- It was seen that majority of the respondents are aware of electric vehicles (83%).
- It was found during the study that out of the total respondents, 83% of the respondents are using non-electric vehicles.
- Most of the respondents (52%) are willing to buy the electric vehicle because it is eco-friendly.

- It was found that the respondents have positive agreement regarding the price, mileage, speed of the electric vehicles.
- Most of the respondents (34%) opined that electric vehicles are costlier and that demotivate them to buy the electric vehicles.
- Majority of the respondents (72%) are willing to buy the electric vehicles in near future.

**Suggestions**

- From the study it was found that majority of the respondents are aware of the electric vehicles, but they are worried about the safety and durability of the electric vehicles. Hence it’s advised to the companies to create the awareness and build the confidence among the customers about the same issues.
- During the study majority of the respondents opined that electric vehicles are expensive. The companies need to involve in extensive research and try to reduce



the cost of manufacturing the electric vehicles. This also helps in selling the vehicles to the customers at lesser price.

- It is advised to policymakers to provide more subsidies on electric vehicles. This motivates the customers to prefer electric vehicles over non-electric vehicles.
- It is advised to the companies to have number showrooms to provide after sales service to the customers. They also need to have more number of charging stations across the county to help the customers to travel longer distances as many respondents opined that it's not suitable for longer distances.

### **Conclusion**

In our country electric vehicles are still in introduction stage, so people doubt about the safety and durability. During the study it was found that majority of the respondents are aware about the electric vehicles and its benefits also. This helps in preventing air-pollution and country dependency on other countries for

importing of crude oil. It is also beneficial to the customer as fuel prices are surging day by day. Government need to motivate the people to purchase more electric vehicles by providing more subsidies. At this stage, there is a need to focus on research and development by the companies to improve the quality and educate the people about the safety of the vehicles.

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