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## **A Study on Brand Awareness of Electric Two Wheeler in Coimbatore City**

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### **Authors' contributions**

*This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.*

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### **ABSTRACT**

The core purpose of this study is to examine the relationship of electric two wheeler consumer awareness on the subsequent purchase habits of customers around the world. For this research EVs have been defined as electric cars (EVs). Data for this research comes from Coimbatore city for the period from 2018 to 2021. Within the topic of study around EV adoption, practically all work has been done at the statistics level. The major results of this research include a considerable positive association between consumer awareness and purchase behaviors. Consistent with earlier work this analysis identified a substantial association between family income and EV sales using two separate measures, and concluded that at the regional level better policy coordination promotes a more hospitable climate for EV adoption. India is the second biggest producer and manufacturer of two-wheelers in the world. It is second to Japan and China in terms of the quantity of two wheelers manufactured and domestic sales. Indian two wheeler sector has received amazing development in the previous few years. Indian two-wheeler sector has accepted the new concept of Electric Bikes and Scooters that are highly popular form of personal transport in the developed nations like America, Japan and China. With the increases cost of fuel at International level, increasing levels of pollution and congestion in transport system notably in metropolitan areas, higher operating and maintenance cost of car, the electrically charged bikes or scooters have extremely bright future in

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field of personal transportation. This Paper explores about awarness of selecting the brand of electric two wheelers among consumers in Coimbatore city of Tamil Nadu and the sample gathered for the research was 120 respondents.

*Keywords: Electric two wheeler; consumer awareness; fuel economy; pollution; environment.*

## 1. INTRODUCTION

Governments throughout the globe are establishing regulations to promote electric cars to reduce dependence on oil, cut greenhouse gas emissions, and improve air quality. In the last several years, yearly global electric car sales have been firmly on the climb, from only hundreds in 2010 to over 500,000 in 2015 and over 750,000 in 2016. The cumulative worldwide market surpassed the milestone of 1 million electric cars in September 2016, and from there swiftly climbed to 2 million in January 2019. The early market growth for electric cars continues, but a number of impediments limit their more widespread acceptance. These barriers include the added cost of the new technology, the relative convenience of the technology considering range and charge times, and consumer comprehension regarding the availability and feasibility of the technology [1-3]. This third aspect, generally referred to as "consumer awareness," is vital. The growth of electric vehicles market is substantially connected to prospective consumers' broad awareness and comprehension of the potential advantages of electric cars. Governments at national and local levels, automotive manufacturers and dealers, electric utilities, and other organizations are involved in numerous activities to assist overcome hurdles to consumer knowledge regarding electric vehicles [4-6]. These communication efforts include developing print and online information and tools, organizing public events and workshops, increasing exposure to electric vehicles from fleet and carsharing services, developing action plans for electric vehicle readiness, executing highly visible technology demonstration projects, conducting social media marketing campaigns, and more. These actions are crucial since many prospective buyers usually lack strong awareness of what electric cars are, what advantages they offer, the models that are available, and the accompanying incentives [7-9]. The experience of freedom and being one with the Nature comes only from riding a two-wheeler.

Indians favor the two wheelers because of their small manageable size, inexpensive cost and maintenance, and availability of loans on flexible conditions. Indian streets are filled with individuals of every age group riding two-wheelers. The people perceives motorized two wheelers as a mark of status. Majority of Indians, particularly the millennials prefer motorcycles rather than vehicles. Capturing a big proportion in the two-wheeler sector, motorcycles and scooters span a major section. Bikes are believed to be preferred among young, as they aid in simple transportation [10-12]. More number of two wheelers is accessible in the industry, recognized for their current technology and increased mileage. Indian motorcycles, scooters and mopeds symbolize flair and class for both men and women in India. India is the second biggest producer and manufacturer of two-wheelers in the world. It is second to Japan and China in terms of the quantity of two-wheelers manufactured and domestic sales. Indian two-wheeler sector has achieved amazing development in the recent few years. The face of car industry that was changed with the discovery of fuel-efficient technology is all ready to witness dawn of a new era in two-wheeler sector. It's not petrol or diesel or any other fuel, but it is electricity that has begun a revolution in two-wheeler business in India.

## 2. MATERIALS AND METHODS

The respondents of this study has been selected from various zones of Coimbatore city. Simple random and purposive sampling was used to collect the primary data and has been collected through well-structured interview schedule. Totally 120 respondents were selected for the research study who are all using electric two wheelers throughout the Coimbatore city. Tools used for this study is Percentage analysis, Garrett ranking technique and Likert scale analysis. I used this tools to know how many of them aware about electric two wheelers in Coimbatore city in a simplest way, so I used this tools.

### 3. RESULT AND DISCUSSION

From the Table 1, It shows that the 53.40 per cent of the respondents are Male and 46.6% of the respondents are Female. Hence, Majority (53.40%) of the respondents are Male were using electric two wheelers.

From the Table 2, It shows that the 27.4% of the respondents Monthly income is Rs.40,000 to Rs.60,000, followed by 25.8% of the respondents Monthly income is Rs.60,000 to Rs.80,000, followed by 24.2% of the respondents Monthly income is Above 80,000 and 22.6% of the

respondents Monthly income is Less than Rs.40,000. Hence, Majority (27.4%) of the respondents Monthly income is Rs.40,000 to Rs.60,000 by this we can know lower middle class peoples mostly buys electric two wheelers.

From the Table 3, It shows that the 68.5% of the respondents are Willing to pay electric two wheeler and 31.5% of the respondents are not willing to pay electric two wheeler. Hence, Majority (68.5%) of the respondents are willing to pay and the respondents were environment concerning persons.

**Table 1. Showing gender of the respondents**

| S. No | Particulars | No. of respondents | Percentage |
|-------|-------------|--------------------|------------|
| 1.    | MALE        | 64                 | 53.40      |
| 2.    | FEMALE      | 56                 | 46.60      |
| TOTAL |             | 120                | 100.00     |

**Table 2. Showing monthly income of the respondents**

| S. No | Particulars            | No of respondents | Percentage |
|-------|------------------------|-------------------|------------|
| 1.    | Less than Rs.40,000    | 28                | 22.60      |
| 2.    | Rs.40,000 to Rs.60,000 | 34                | 27.40      |
| 3.    | Rs.60,000 to Rs.80,000 | 32                | 25.80      |
| 4.    | Above 80,000           | 30                | 24.20      |
| TOTAL |                        | 120               | 100.00     |

**Table 3. Showing willingness to pay of the respondents**

| S. No | Particulars | No of respondents | Percentage |
|-------|-------------|-------------------|------------|
| 1.    | YES         | 85                | 68.5       |
| 2.    | NO          | 39                | 31.5       |
| TOTAL |             | 120               | 100        |

**Table 4. Showing ranking of the brand known by the respondents**

| S. No | BRAND NAME      | RANK I<br>(73) | RANK II<br>(57) | RANK III<br>(44) | RANK IV<br>(28) | TOTAL        | OVERALL<br>RANK |
|-------|-----------------|----------------|-----------------|------------------|-----------------|--------------|-----------------|
| 1.    | GAURAELECTRIC   | 20*73= 1460    | 25*57= 1425     | 30*44= 1320      | 45*28= 1260     | 5465/120     | VI              |
|       |                 |                |                 |                  |                 | <b>45.54</b> |                 |
| 2.    | AMPERE ELECTRIC | 11*73= 803     | 27*57= 1539     | 42*44= 1848      | 40*28= 1120     | 5310/120     | VIII            |
|       |                 |                |                 |                  |                 | <b>44.25</b> |                 |
| 3.    | HERO ELECTRIC   | 29*73= 2117    | 47*57= 2679     | 30*44= 1320      | 14*28= 392      | 6508/120     | IV              |
|       |                 |                |                 |                  |                 | <b>54.23</b> |                 |
| 4.    | TVS i CUBE      | 35*73= 2555    | 39*57= 2223     | 36*44= 1584      | 10*28= 280      | 6642/120     | III             |
|       |                 |                |                 |                  |                 | <b>55.35</b> |                 |
| 5.    | OLA S1          | 48*73= 3504    | 37*57= 2109     | 24*44= 1056      | 11*28= 308      | 6977/120     | I               |
|       |                 |                |                 |                  |                 | <b>58.14</b> |                 |
| 6.    | ATHER 450X      | 41*73= 2993    | 35*57= 1995     | 29*44= 1276      | 15*28= 420      | 6684/120     | II              |
|       |                 |                |                 |                  |                 | <b>55.70</b> |                 |
| 7.    | SIMPLE ONE      | 21*73= 1533    | 35*57= 1995     | 40*44= 1176      | 24*28= 672      | 5376/120     | VII             |
|       |                 |                |                 |                  |                 | <b>44.72</b> |                 |
| 8.    | REVOLT RV 400   | 27*73= 1971    | 24*57= 1368     | 26*44= 1144      | 43*28= 1204     | 5687/120     | V               |
|       |                 |                |                 |                  |                 | <b>47.39</b> |                 |

**Table 5. Showing no of the respondents who are all satisfied with electric two wheelers by Brands**

| S. NO | Particulars       | No of the respondents | Likerts method | Total score |
|-------|-------------------|-----------------------|----------------|-------------|
| 1.    | Strongly Agree    | 12                    | 5              | 60          |
| 2.    | Agree             | 58                    | 4              | 232         |
| 3.    | I don't know      | 25                    | 3              | 75          |
| 4.    | Disagree          | 16                    | 2              | 32          |
| 5.    | Strongly disagree | 9                     | 1              | 9           |
|       | <b>Total</b>      | <b>120</b>            | <b>15</b>      | <b>408</b>  |

From the Table 4, It shows that I Rank is OLA S1 by the respondents, followed by II Rank is AATHER 450X by the respondents, followed by III Rank is TVS I CUBE by the respondents, followed by IV Rank is HERO ELECTRIC by the respondents, followed by V Rank is REVOLT RV 400 by the respondents, followed by VI Rank is GAURA ELECTRIC by the respondents, followed by VII Rank is SIMPLE ONE by the respondents and VIII Rank is AMPERE ELECTRIC by the respondents.

Hence, I Rank is OLA S1 Brand and it is Majorly Ranked by the respondents.

$$\text{Likert scale} = \sum(fx) / \text{total number of respondents} \\ = 408 / 120 \\ = 3.4$$

From the Table 5, the No of respondents who are all satisfied with Electric two wheeler shows in likert scale and the value is 3.4 which are greater than the mid value (3).

Hence, the respondents are agree with the buying of Electric two wheeler by brands.

#### 4. CONCLUSION

The idea of e-bike has arrived into Coimbatore in the last 4-5 years and the same is gaining speed in futures, as there are approximately 10 dealers now for e-bike in the city. As an eco-friendly product it is more ideal for cities due to regular increase in the fuel costs, the electrically charged automobiles appear to be the cheapest one compared to the conventional vehicles. In this study most of the respondents were male and their monthly income is about Rs.40,000 to 60,000, 68.5% of respondents were ready to pay for electric two wheeler. The respondents were highly aware in the selecting the brand of electric two wheeler. Based on selecting their brands of electric two wheeler most of the respondents were satisfied and aware about electric two wheelers.

#### 5. SUGGESTIONS

There are numerous problems in this study: firstly, thanks of the restrictions of resources, we have only analyzed six main probable impacting factors based on RCT. In actuality, there are many aspects that may effect the Indian consumers' purchasing willingness, for example, fuel savings (Krupa et al., 2014), performance attributes (Wang and Liu, 2015), etc. Secondly, India is a growing country. It is inescapable that the divide between the rich and the impoverished in different cities is enormous, notably the gap between first-tier cities and other cities. However, in our sample, the proportion of first-tier cities amounted for 63.9 percent. This may have a tiny effect on the results. Thirdly, the link between purchase cost and government financial incentives are overlooked when examining the important factors of electric vehicle purchasing. Both the purchase cost and government financial incentives are not only monetary factors, but also are constraints. Obviously, the interactive linkages between them may be complicated as the existence of financial incentives could minimize the cost of buying. In addition, the results reveal that the Intention of Indian buyers to get electric automobiles has no substantial relation with the acquiring cost. But the government's financial incentives have a beneficial impact on Indian tendency to get electric autos. Thus, it is doubtful whether there are further linkages between them. Furthermore, this study simply focuses on India market, it would also be vital to undertake future research on a global scale.

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knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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