

# Marketing Opportunities of Electric Scooters in Tamil Nadu with Special Reference to Chennai City- A Study

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## ABSTRACT

The technological world is fully based on new invention for the young generation, the technological must to be produced and to use the very huge level. The common people are wants to be rich level with having their product compare with other. The same kinds of people are needed the well one technology in their life style, the level of technology to varied from one to one. The article contains the electric two- wheelers are the important transport vehicle in the stage of marketing and also the promotions. The details of introduction, objectives, scope, limitations and the chi-square test of the tools used. The findings, suggestions are framed only on the basis of respondent thoughts and also the conclusion is based on total of the respondents expectation with the new way of approach.

**(Keywords:** Invention, Technology, Generation, Scooters, Electrical, Transports, Marketing)

## INTRODUCTION

The Indian electric scooter and motorcycle market would reach a sales volume of 1080.5 thousand by the end of 2020 and 2025. Due to rising pollution and the incentives by the government, the sales of electric scooters and motorcycle are booming in India. In 2019, nearly 152. Thousand units of electric motorcycle and scooters were sold in the country, registering a 20.6% growth annually from 2014. In terms of retail sales value, the market is predicted to advance at a CAGR of 63.9% from 2020 to 2025 and attain revenue of more than \$1.0 billion in 2025. A key factor fueling the growth of the market is the provision of lucrative financial incentives and subsidies on electric vehicle by the government is also providing tax exemption and purchase rebates for promoting the utilization of electric vehicles and two wheelers in the country.

The ballooning sales of these scooters would be driven by the availability of a wide array of electric scooter models in the country, their affordable prices and their ability to serve as excellent alternatives to the traditional fossil fuel-powered mopeds. Accordingly to the publishers, a market research company based in India, the Indian electric scooter and motorcycle market is currently demonstrating the highest growth in Uttar Pradesh out of all the states in the country.

The surge of the market in Uttar Pradesh is caused by the increasing penetration of electric motorcycles and scooters in the state. Moreover, these two-wheelers are registering soaring sales in the tier 2 and 3 cities of the state, many Original Equipment Manufacturing (OEMs) are rapidly increasing their dealer network. This is in turn, pushing up the sales of electric motor cycles and scooters in the state.

Hence, it can be safely said that the market will exhibit rapid growth in the coming years , mainly because of the rising implementation of favorable government policies regarding the sales of electric vehicle and the increasing scooters and motorcycle over their fuel-based variants in the country.

## THE LEADING ELECTRIC TWO-WHEELER COMPANIES IN INDIA

The electric two-wheeler (E2W) Segment has, since FY 2016, growing at CAGR of 62 percent, which culminated in sales figures topping 152000 units in the last fiscal. However, according to an independent research agency that figure shows that the year-on-year growth for FY2020 is quite low when compared to the previous two years when the market expended over 100 percent in both years. Though on a very small base.

## OKINAWA

Okinawa auto tech Pvt. Ltd a 100 percent Indian electric two – wheeler manufacturing company that was established in 2015 ranks first in india for electric two wheeler sales in FY 2020. It is the biggest player in the segment selling more than 10000 units

through a 300 strong dealer network that is supposed to be a massive 36 percent of the market for now. The firm has a full range of six two-wheeler models , from raise to praise at Rs.1.20 lacs approximately

### **HERO ELECTRIC**

Falling under the umbrella of one of the largest two-wheeler companies in the world in Hero Motor Corp, Hero Electric is the second largest E2W firm in india for FY2020. Building on a decade of success , the firm sold 7400 units in the fiscal year to hold a 27 percent market share.

### **ATHER ENERGY**

The newest, flashiest entrant in the segment is Banagluru based startup Ather Energy. Expanding at a very brisk rate the Banagluru centred electric scooter company has started growing its market for its premium two-wheeler as it looks to go national very soon. The firm sold more than 2900 units in the fiscal year , holding a 10 percent market share just in its second year of existence.

### **AMPERE VEHICLE**

Fourth in the list behind Ather Energy is the oldest players in the segment- Ampere vehicle , also from Banagluru. This 12 years old firm, which has been powered by women from the very beginning with over 30 percent of its workforce made up of women , has been an ever-present in the India e-mobility transition. The company sold just around 2500 units in the fiscal year , which secured it a 9 percent share of the market . The firm is fresh from the launch of its Magnus pro scooter , which has a 1.2 KW BLDC Vector Sine Wave motor that is paired with a 60V 30Ah advanced lithium –ion battery.

### **REVOLT MOTORS**

A completely new entrant to the electric mobility segment is Gurugram based startup Revolt Motors. With the former founder of Micromax Mobiles, Rahul Sharma behind it, expectations are high from Revolt. The firm claims to be selling india’s first AI-enabled electric motorcycle packed with multiple features. The firm managed to hit the 1000 mark for sales in the fiscal year , despite taking orders for only 6 months . The firm holds a 4 percent market share. Its featured –packed RV 400 electric bike is offered on a monthly subscription model or an upfront cost of Rs.1.03 lakh.

### **OBJECTIVES OF THE STUDY**

1. To find out the Two- wheelers is an cheapest one in the present vehicle marketing.
2. To make awareness about the usage of eco-friendly vehicle in the society.
3. To take a reasonable actions about the safeness of vehicle in the smoke free world.
4. To maintain the societal peoples wealth in the forms of “0” pollutant vehicle.

### **SCOPE OF THE STUDY**

1. The study is on the way of pollutant to safety life of the society in the likable one of economical.
2. To achieve the real life the societal people in the nature of transportation from one place to another with help of some tools.
3. The vehicle forms of the transport must to operate the single line statement of social welfare.
4. Nature of the vehicle usage are based on eco-friendly but its also make a effectiveness of the utilization of resources.

### **REVIEW OF RELATED LITERATURE**

**Mr. Omkar Tupe, Prof. Shewta Kishore and Arloph Johnvieira (2020)** in their study of with the depletion of fossil fuels and constant hike in fuels prices, there is a need for energy transition in vehicle in india. Govt take initiate to fight pollution levels by promotion EV’s and giving subsidies on purchase. To boost its production, Govt has eased the FDI norms. Various emerging brands are launching EV’s in India.

**Lingzhi Jin and Peter Slowik (2019)** from their study of “Literature Review of Electric Vehicle Consumer Awareness and Outreach Activities” this paper offers an initial steps in exploring the consumer awareness and outreach actions in different regions. From our review of the literature , we have identified multiple studies that examine consumer attitudes towards electric vehicle and /or identify consumer awareness as a barrier to their greater adoption.

**Shallendra Kumar, S.K. Choudry and Chethan .K.N (2018)** from their study of “Commercial Viability of Electric Vehicle in India” E-Vehicle are poised to cause a major disruption in the automobile as well as the energy industry across the globe. This disruption is propelled by powerful purpose of creating a greener, safer and sustainable planet. Over 194 participating countries in the historical Paris climate agreement enforced in 2016 pledged to limit the average increase in global temperature to less than 2 degree Celsius in this century.

### **LIMITATIONS OF THE STUDY**

1. The study is only based on the usage of vehicle for the future generations of Indian society.
2. Study is confined only the tamilnadu with special reference to Chennai.
3. The above study is making the reality of the present society to following era of technology.

4. The new generation people must know how to take this actions in the next level of the present generations.

**DATA ANALYSIS**

**Table: 1**

**AGE GROUP VERSUS THE CUSTOMER CARE FROM SERVICE**

**NULL HYPOTHESIS (H<sub>0</sub>)**

- There is no significant relationship between care from Service providers and Age group of the respondent at 5% significant level.

**ALTERNATE HYPOTHESIS (H<sub>1</sub>)**

- There is significant relationship between care from Service providers and Age group of the respondent at 5% significant level.

**OBSERVED FREQUENCY TABLE**

| Age      | SATISFIED | GOOD | NEED TO IMPROVE | NOT SATISFIED | TOTAL |
|----------|-----------|------|-----------------|---------------|-------|
| Below 15 | 35        | 30   | 30              | 25            | 120   |
| 15 – 25  | 48        | 49   | 40              | 33            | 170   |
| 25 – 35  | 10        | 38   | 60              | 22            | 130   |
| Above 35 | 7         | 13   | 10              | 50            | 80    |
| Total    | 100       | 130  | 140             | 130           | 500   |

**EXPECTED FREQUENCY TABLE**

| Age      | SATISFIED | GOOD  | NEED TO IMPROVE | NOT SATISFIED | TOTAL |
|----------|-----------|-------|-----------------|---------------|-------|
| Below 15 | 28.80     | 31.20 | 33.60           | 31.20         | 120   |
| 15 – 25  | 34        | 44.20 | 47.60           | 44.20         | 170   |
| 25 – 35  | 26        | 33.80 | 36.40           | 33.80         | 130   |
| Above 35 | 16        | 20.80 | 22.40           | 20.80         | 80    |
| Total    | 100       | 130   | 140             | 130           | 500   |

**CHI SQUARE TABLE**

| O          | E          | (O-E)  | (O-E) <sup>2</sup> | (O-E) <sup>2</sup> /E |
|------------|------------|--------|--------------------|-----------------------|
| 35         | 28.80      | 6.2    | 38.4400            | 1.334722              |
| 48         | 34         | 14     | 196                | 5.764706              |
| 10         | 26         | -16    | 256                | 9.846154              |
| 7          | 16         | -9     | 81                 | 5.0625                |
| 30         | 31.20      | -1.20  | 1.4400             | 0.046154              |
| 49         | 44.20      | 4.80   | 23.04              | 0.521267              |
| 38         | 33.80      | 4.20   | 17.6400            | 0.521893              |
| 13         | 20.80      | -7.80  | 60.8400            | 2.925                 |
| 30         | 33.60      | -3.60  | 12.9600            | 0.385714              |
| 40         | 47.60      | -7.60  | 57.7600            | 1.213445              |
| 60         | 36.40      | 23.60  | 556.9600           | 15.3011               |
| 10         | 22.40      | -12.40 | 153.7600           | 6.864286              |
| 25         | 31.20      | -6.20  | 38.4400            | 1.232051              |
| 33         | 44.20      | -11.20 | 125.4400           | 2.838009              |
| 22         | 33.80      | -11.80 | 139.2400           | 4.119527              |
| 50         | 20.80      | 29.20  | 852.6400           | 40.99231              |
| <b>500</b> | <b>500</b> |        |                    | <b>98.96884</b>       |

**CHI SQUARE**

Df: (r-1)(c-1)

(4-1)(4-1)

9.

Table value: 16.919

Calculated Value: 98.96884

**Result:**

Since the calculated value of Chi Square is greater than the table value of  $X^2$ ,  $H_0$  is rejected. So the Respondent Age group is influenced by customer care from service providers.

Hence there is evidence of association between Age group of the respondent and customer care from service providers.

**Table: 2**

**MONTHLY INCOME VERSUS MAINTENANCE OF VEHICLE**

**NULL HYPOTHESIS ( $H_0$ )**

- There is no significant relationship between the maintenance of vehicle and monthly income of the respondent at 5% significant level.

**ALTERNATE HYPOTHESIS ( $H_1$ )**

- There is significant relationship between the maintenance of vehicle and monthly income of the respondent at 5% significant level.

**OBSERVED FREQUENCY TABLE**

| Monthly Income | Very high | High | Moderate | Low | Total |
|----------------|-----------|------|----------|-----|-------|
| Below 5000     | 32        | 32   | 34       | 32  | 130   |
| 5001 – 10000   | 47        | 36   | 49       | 23  | 155   |
| 10001 – 20000  | 39        | 37   | 40       | 24  | 140   |
| Above - 20000  | 18        | 19   | 8        | 30  | 75    |
| Total          | 136       | 124  | 131      | 109 | 500   |

**EXPECTED FREQUENCY TABLE**

| Monthly Income | Very high | High  | Moderate | Low   | Total |
|----------------|-----------|-------|----------|-------|-------|
| Below 5000     | 35.36     | 32.24 | 34.06    | 28.34 | 130   |
| 5001 – 10000   | 42.16     | 38.44 | 40.61    | 33.79 | 155   |
| 10001 – 20000  | 38.08     | 34.72 | 36.68    | 30.52 | 140   |
| Above - 20000  | 20.40     | 18.60 | 19.65    | 16.35 | 75    |
| Total          | 136       | 124   | 131      | 109   | 500   |

**CHI SQUARE TABLE**

| O          | E          | (O-E)  | (O-E) <sup>2</sup> | (O-E) <sup>2</sup> /E |
|------------|------------|--------|--------------------|-----------------------|
| 32         | 35.36      | -3.36  | 11.2896            | 0.319276              |
| 47         | 42.16      | 4.84   | 23.4256            | 0.555636              |
| 39         | 38.08      | 0.92   | 0.8464             | 0.022227              |
| 18         | 20.40      | -2.40  | 5.7600             | 0.282353              |
| 32         | 32.24      | -0.24  | 0.0576             | 0.001787              |
| 36         | 38.44      | -2.44  | 5.9536             | 0.15488               |
| 37         | 34.72      | 2.28   | 5.1984             | 0.149724              |
| 19         | 18.60      | 0.40   | 0.1600             | 0.008602              |
| 34         | 34.06      | -0.06  | 0.0036             | 0.000106              |
| 49         | 40.61      | 8.39   | 70.3921            | 1.733369              |
| 40         | 36.68      | 3.32   | 11.0224            | 0.300502              |
| 8          | 19.65      | -11.65 | 135.7225           | 6.906997              |
| 32         | 28.34      | 3.66   | 13.3956            | 0.472675              |
| 23         | 33.79      | -10.79 | 116.4241           | 3.445519              |
| 24         | 30.52      | -6.52  | 42.5104            | 1.39287               |
| 30         | 16.35      | 13.65  | 186.3225           | 11.39587              |
| <b>500</b> | <b>500</b> |        |                    | <b>27.14696</b>       |

## CHI SQUARE

Df: (r-1)(c-1)

(4-1)(4-1)

9.

Table value: 16.919

Calculated Value: 27.14696

### Result:

Since the calculated value of Chi Square is greater than the table value of  $X^2$ ,  $H_0$  is rejected. So the Respondent Income level is influenced by the maintenance of vehicle of the respondent.

Hence there is evidence of association between income level of the respondent and the maintenance of vehicle of the respondent.

### FINDINGS

The new generation people wants live with the best of the product other one have in the present day. The technological developments is not a single year change its based on decades of changes in the societal people. The generation gap must be filled with the some kind of new technological improvements in the today. The today change reflects the improvements in the coming days of new ways. Electric scooters is the new life of the motor transport, vehicle is one the major transport in the present society. The level of transport must to go the place to place and the range to range. The generation of the people at the time of having enough money for the purpose of purchasing their two wheelers. The capacity of people also have their internal and the external sources of the money value. Future of the electric scooters is the real and the imaginal value in the present also.

### SUGGESTIONS

From the details are got from the customers, they are ready to surrender their detailed information of the present marketing situations of the two wheeler producers. The Indian consumers all are the genuine type of purchaser of the whole world of the general people. The people are the real source for the reach of new product into users hands with the effective time period, the time limit is one of the major problem at the time of introduction and in the stage promotion. The promotional product are the real value of the present into the future, the future product are also. All the customers' expectation is only on how to use and how to apply the practical level of the new stage. Every kind of producers must to get the original and also the duplicate in the present market. The product to be promoted from the electric level of housing use and industrial uses. The users of the new product to be identified and the followed in the future days also.

### CONCLUSION

From the above point of view all the product is ready to accept by the customers but the important point is how to use handle in the safety manner. The operating capacity for the product is basically on brand and also the goodwill companies. The goodwill companies are to be followed and the operated with the help of some people in the nature of human minds. The human beings are in the marketing period is also good one for the introduction of any product in the hands of buyers. The buyers all are need the new information of the product to be identified and followed with in the needed time and period of general nature. The technological invention is the primary for the future and the present marketing field. The new marketers are the well developed in the stage of money and the popularity also.

**Ethical Clearance** - Completed

**Source of Funding** - Self

**Conflict of Interest** - Nil

### REFERENCE

1. Transportation Research Part D: Transport and Environment (Who is using E-Scooter and How?)- Volume-92, March 2021.
2. The Key to an Electric Scooter revolution in India is getting the battery right -Venkat Viswanathan & Shashank Sripad- Published in October 29<sup>th</sup> 2019.
3. Electric Two- Wheeler in india and Viet Nam: Market Analysis and Environmental Impacts- Jamerson .F.E and E. Benjamin – Published in 2007.
4. As Fuel Prices Rise, Electric Scooters are Finally Gaining Traction in India- Shally Seth Mohile- May 5<sup>th</sup> 2021.
5. India Electric Vehicle Goals Being Realized on Two Wheels , not Four- Rajendra Jahav and Aditi Shah- January 14<sup>th</sup> 2019.
6. Upcoming Electric Scooters in India in 2020- Rounak Jain- February 18<sup>th</sup> 2020.
7. Electric Bike Buying Guide: Save Money on EV Bike Purchase- Team Acko- July 21<sup>st</sup> 2021.