

## Customers perception towards electric two wheeler vehicles in Vellore City: A study on go green battery operated vehicles

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### Abstract

The study is based on Customers perception towards Electric vehicles (2-wheelers) in Vellore City with respect to GO Green BOV. The basic objectives of the study are to analyze consumer perception towards Electric two wheelers and develop strategies for improving B2B sales of Electric Two wheelers and to identify the means to enhance the consumer awareness level towards electric vehicles. An Exploratory research was conducted with a sample of 100 respondents conveniently selected from Vellore City. A structured questionnaire was administered to capture the primary data from the selected respondents. The data was further analyzed using the SPSS package using the Factor analysis, Co-relation, Regression and Cross-tabulation statistical tools. The study revealed that, there is complete lack of awareness about the Electric Bikes even in a city like Vellore. Most of the respondents are not convinced about the product benefit as they perceive the product to be of Inferior quality and majority of the existing customers are facing problem with after sales servicing and support. The study suggests the company to educate the people about the product and potential benefits. Improve the product quality as well the battery life. The study concludes that that people's perception about the product is negative but with the support coming forward from the Central govt. and ever increasing prices of petrol, sooner or later the electric bike industry is going to grow drastically.

**Keywords:** Vellore; Factor

### 1. Introduction

Go Green BOV is the leading manufacturer of Electric two wheeler and three wheeler based out at Bangalore with headquarters in J P Nagar. Go Green BOV was started in 2007, with an aim to reduce carbon emission and give an eco-friendly environment to the world. Customer base of the company is in entire south at present, but looking for Pan India presence in near future. The parent company of Go Green BOV ACTD. ACTD was born with a vision to revolutionize policies and create innovative products for the improvement of the sector and the country. Go Green BOV electric two-wheelers are highly advanced with cruise control technology, Theft braking system, Lock braking, International styling, Keyless entry, No number plate, No licensee and a lot of other feature. Go GreenBOV operates throughout Tamil Nadu with a very strong Dealership network. Go Green BOV has the highest number of variants in its product portfolio than any other electric vehicle company in India. Apart from being light on pocket and light on conscience GO Green BOV bikes are easy to use, lightweight and maintenance free providing a stress free experience.

### 2. Review of literature

Ashish Aggarwal (2014) says that from the research it can concluded that there is strong potential for growth in the electric vehicle industry but it will take some time in India in kickoff because Customers in India are not ready to pay the high price. Also they are very much concerned about the security and quality aspect.

Bhupendra Kumar Verma (2011) in his paper sates that on the basis of this study, the following suggestions can be made to help in sales of electric bike more effective. There is need to

bring more awareness of various others feature of electric bike brings to a consumer mind by providing them vouchers and literatures in different regional languages. There should be free, fair, justified and honest competition amongst the various electric bike companies. Manufacturer/dealer should be given timely information of the governments Changed policies regarding two wheeler sectors.

Deekshu (2008) found that most of the customers were satisfied with the mileage of the Electric bikes and are convinced about the electric bike benefits and were willing to refer it to their friends. It was found that most of the customers are not satisfied with after sales service. It shows that customers are dissatisfied about after sale service. It was found that maximum number of the customers feel the speed of the Electric bikes to be very low and were not satisfied with the current speed of the bikes. It was found that non-availability of Electric bikes is also a reason for lower market share and consumers not purchasing it.

### 2.1 Need for the Study

The Electric Vehicle (EV) industry is still is nascent stage in India. There is a lot of need to create awareness among the general public to make this alternative model success. While it is for sure that sooner or later the electric vehicle will emerge as a strong component, for the time being there is the need for educating the customers to arouse a need for the product. The objective behind this project is to have a better understanding of the EV market, a SWOT analysis of the EV industry, challenges and opportunities faced by the Industry.

**2.2 Statement of the Problem**

A study on Customers perception towards Electric vehicles (2-wheelers) in Vellore City with respect to GO Green BOV and developing strategies to improve B2B sales of Electric Vehicles.

**2.3 Objectives of the study**

1. To analyze consumer perception towards Electric two wheelers
2. To develop strategies for improving B2B sales of Electric Two wheelers
3. To identify the means to enhance the consumer awareness level towards electric vehicles

**2.4 Hypotheses**

H1: There exists a high degree of co-relation between suggesting an e- bike and convinced with Electric bike

**3. Research Methodology**

The success of any event heavily depends upon the way chosen for its execution. This includes ensures of some basic question to the specific focus on constraints as well. In other words they can call the methodology as the backbone of any research. It also includes research or study method. Thus when they talk of methodology they not only talk of methodology they not talk of methods but also consider the logic behind the methods they use in the context of their study objective and explain way use are using them so that Study results are capable of being evaluated logically.

**Research Type**

Exploratory research

**Sample Size**

100

**Sampling Area**

Vellore city

**Sampling Technique**

Convenient sampling

**Data Collection Tools**

Structured questionnaire

**Statistical Tools Used**

· Chi-square Test

**4. Demographic attributes**

S. No	Attribute	No of Respondent	% of Respondent
1	Gender Male	40	40
	Female	60	60
2	Age 13-18	31	31
	19-25	13	13
	26-40	24	24
	41-60	17	17
	Above 60	15	15
3	Occupation Student	23	23
	Salaried	24	24
	House Wife	20	20
	Business	21	21
	Other	12	12

**5. How did you come to know about Electric Bikes?**

	Frequency	%
Friends	20	20
Internet	28	28
News/Paper	20	20
TV	22	22
Other	10	10

**6. How will you rate your level of awareness towards Electric Vehicles?**

	Frequency	%
Poor	19	19
Average	9	9
No Options	30	30
Good	19	19
Excellent	23	23

**7. Which bike are you using presently?**

	Frequency	%
Conventional Bike	76	76
Electric Bike	24	24

**8. Which of the factors do you think that prevents you from making the decision of purchasing the electric bikes?**

	Frequency	%
Expensive	27	27
Lack of awareness	12	12
less km/hour	14	14
Non availability	22	22
Benefit	25	25

**10. How is after sales service availability affecting your purchasing decision of electric bikes?**

	Frequency	%
least Important	3	3
Less	30	30
Neutral	12	12
Important	16	16
Very Much Important	39	39

**11. How much are you convinced about the benefits of Electric bikes?**

	Frequency	%
Very low	20	20
Low	15	15
Moderate	25	25
High	13	13
Very High	27	27

**12. How likely that you would suggest an electric bike to your friend?**

	Frequency	%
Very low	14	14
Low	20	20
Moderate	38	38
High	10	10
Very High	18	18

**13. H1: There exist a high degree of co-relation between suggesting an ebike and convinced with ebike**

Correlation			
		How likely that you Would suggest an Electric bike to your friend?	How much are you convinced about the benefits of Electric bikes?
How likely that you would suggest an Electric bike to your friend?	Pearson Correlation	1	.110
	Sig. (2-tailed)		.276
	N	100	100
How much are you convinced about the Benefits of Electric bikes?	Pearson Correlation	.110	1
	Sig. (2-tailed)	.276	
	N	100	100

Since sig 2 Value 0.276 is greater than .05 (5% level of significance) hence H1 is accepted. From the above data it is evident that, Highly positive Pearson correlation exist between two variables, when two variables post sales service and responsiveness towards the enquiry in the same direction, the correlation between the two variables is high, if one variable increases by 100, the other variable also increase by 110 according to the results in the table.

**14. Findings**

- There is more no. of petrol vehicles in the market than the Electric ones.
- Media awareness towards electric bikes is very low.
- There is a lack of awareness amongst respondents about the benefits of electric bikes.
- Female customers are now the biggest target segment of EV Industry.
- Purchasing decisions of an electric bike is not much influenced by the advertisements.
- Majority of respondents believe that Electric bikes are expensive.
- There are no well-established players in the market, with a good brand name.
- Lack of regulatory authority and safety Standards are a major concern for the industry in the long run.
- High Charging time, Lower Mileage, low Speed, Less battery life, Durability are the major technical issues faced by the electric bike industry.
- Lack of government support in the form of subsidy and infrastructure development, is affecting the industry.

**15. Suggestions**

- The first major concern for the company is to take concrete steps to improve the level of awareness among the people. Therefore company has to first educate the people about the product by following methods:
- Visit the school and colleges to teach the students on the need to go for a greener Technology.
- Educate the parents and children about the benefits of having a bike with slow speed, as it makes them a balanced rider.
- Organize Road Shows and Exhibitions to educate the people.
- Team Up with Environment Protection Groups, NGOs to promote the concept of Go Green.
- Highlight the economic viability of the product against the rising fuel price.

- To fully charge an Electric Bike it takes around 6-8 hours, which is very long and it is practically impossible to charge on the go. o To eliminate such problems the Company has to start investing on R&D more focus must be on developing Indigenous technology rather than going for
- Technology Transfer from foreign countries.
- To ride a Petrol bike it is necessary to have a Driving License, hence it is more suited for the age-group of 18-60.
- Provide finance option, EMI by collaborating with any Private sector bank or financial Institution.

**16. Conclusion**

Electric Bike industry is in nascent stage still in India, with lots of apprehension about its durability and quality being offered. While doing this study it became more and more clear that lack of awareness, regulatory authority, quality issues are some of the biggest challenges in front of the industry. But with ever increasing Petrol prices and high pollution, sooner Electric Bikes are going to put a serious challenge to the Petrol Bikes. At this stage the primary focus of the company shall lie on R&D, improving quality and educating people. So with Government support in the form of developing the necessary infrastructure and subsidy to the end customer, there is possibility of Electric Bike Industry is getting ready for a golden future.

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