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Customer Perception and Purchase Intention towards Electric Two - Wheelers

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ABSTRACT: Interest in electric two-wheelers (ETWs) is raising as a result of the growing need for sustainable and ecologically friendly transportation solutions. However, a number of factors, such as customer perceptions and purchasing intentions, slow down the adoption of ETWs. The purpose of this study is to look at the variables that influence consumers' perceptions and intentions to purchase ETWs in Erode city. The study consists of 150 as the sample size. The study found that consumers view ETWs as a more quality, effective performance, and ecologically friendly and convenient two-wheelers.

KEYWORDS: Customer perception, Electric two wheeler, Purchase intention and quality product.

I. INTRODUCTION

Electric two wheelers commonly referred to as e-scooters or e-bikes, are becoming more and more popular as a result of the electric vehicle (EV) market's explosive expansion. With several advantages over conventional fossil fuel-based forms of transportation, like as lower running costs, lower emissions, and increased energy efficiency, these provide a sustainable and ecologically friendly substitute. Understanding consumer perception and purchase intention toward electric two-wheelers is essential for producers and marketers to efficiently develop and sell their goods, as the demand for these vehicles continues to rise. Studies have indicated that consumers' perceptions of a product's sustainability, performance, and quality have a big impact on their inclination to buy. Nevertheless, little is known about the precise elements affecting consumers' perceptions of and intentions to buy electric two-wheelers. The purpose of this study is to examine the relationship between consumer perception and purchase intention for electric two-wheelers, with an emphasis on determining the critical variables that influence consumers' choices in this situation.

II. OBJECTIVES OF THE STUDY

1. To investigate the factors influencing customer perception of electric two-wheelers.
2. To examine the relationship between customer perception and purchase intention towards electric two-wheelers.
3. To identify the perceived benefits of electric two-wheelers to improve marketing strategies and product development.

III. STATEMENT OF THE PROBLEM

The needs for alternative forms of mobility and growing concerns about environmental sustainability have resulted in a sharp increase in demand for electric two-wheelers in recent years. However, many consumers are reluctant to adopt electric two-wheelers despite their many advantages, such as zero emissions, low running costs, and reduced noise pollution. Customers' opinions of electric two-wheelers aren't all the same, which could influence their decision to buy. A lot of people are still unsure whether to buy an electric two-wheeler, which could slow down the expansion of the electric vehicle market. Here the study is made to find the customer perception and purchase intention of electric two wheelers.

IV. RESEARCH METHODOLOGY

The study was made in Erode city with the sample size of 150 respondents with the random sampling method.

Tools for Analysis:

1. Percentage analysis
2. Chi – Square

V. RESULTS AND DISCUSSION

1. Percentage Analysis

CHARACTERISTICS		FREQUENCY	PERCENTAGE
Electric two wheelers product is sustainability	Strongly agree	32	21.3
	Agree	67	44.7
	Neutral	30	20
	Disagree	14	9.3
	Strongly disagree	7	4.7
	Total	150	100.0
Electric two wheelers performance is good	Strongly agree	51	34
	Agree	32	21.3
	Neutral	18	12
	Disagree	34	22.7
	Strongly disagree	15	10
	Total	150	100.0
Electric two wheelers with good Quality	Yes	133	88.6
	No	17	11.3
	Total	150	100.0
Reliability of low running costs	Strongly agree	66	44
	Agree	29	19.3
	Neutral	19	12.6
	Disagree	35	23.3
	Strongly disagree	1	0.6
	Total	150	100.0
Electric two wheelers are convenience	Strongly agree	23	15.3
	Agree	52	34.6
	Neutral	16	10.6
	Disagree	41	27.3
	Strongly disagree	18	12
	Total	150	100.0
Electric two wheelers are environmental concerns	Strongly agree	26	17.3
	Agree	15	10
	Neutral	67	44.6
	Disagree	15	10
	Strongly disagree	27	18
	Total	150	100.0
Electric two wheelers are with effective price	Strongly agree	22	14.6
	Agree	95	63.3
	Neutral	29	19.3
	Disagree	3	2

	Strongly disagree	1	0.6
	Total	150	100.0
Factor influencing the Customer to purchase Electric two wheelers	Brand Image	25	16.6
	Efficiency	43	28.6
	Price	41	27.3
	Comfortable	39	26
	Others	2	1.3
	Total	150	100.0
Satisfaction level	Highly satisfied	20	13.3
	Satisfied	90	60
	Neither satisfied nor dissatisfied	33	22
	Dissatisfied	2	1.3
	Highly dissatisfied	5	3.3
	Total	150	100.0

2. Chi – Square

RELATIONSHIP BETWEEN AGE OF THE RESPONDENTS' AND OPINION ON QUALITY OF ELECTRIC TWO WHEELERS

Quality Age	Yes	No	Total
18 - 20 years	31	19	50
21 – 23 years	33	20	53
24 – 26 years	31	16	47
Total	95	55	150

To find out the relationship between age of the respondents' and opinion on quality of electric two wheelers.

$$\text{Chi-square} = \sum (O_{ij} - E_{ij})^2 / E_{ij}$$

$$\text{Calculated value} = 0.204$$

$$\begin{aligned} \text{Degree of freedom} &= (r-1) \times (c-1) \\ &= (3-1) \times (2-1) \\ &= 2 \end{aligned}$$

$$\text{Level of significance} = 0.05$$

$$\text{Table value} = 5.991$$

Therefore the calculated value is less than the tabulated value.

Factors	Degree of freedom	Table value	Calculated value	Relationship
Age Vs Opinion on quality of electric two wheelers	2	5.991	0.204	No significant relationship

Result:

Null hypothesis is accepted because the calculated value is lesser than table value. So, it is concluded that there is no significant relationship between the age of the respondents' and Opinion on quality of electric two wheelers.

VI. SUGGESTIONS

Manufacturers have to emphasize the economical and environmentally beneficial aspects of electric two-wheelers in order to improve consumer perception and purchasing intent. This can be accomplished by focusing marketing efforts on the financial and environmental advantages of cutting fuel costs as well as the reduction of carbon emissions. Emphasizing the quiet and comfortable riding of electric two-wheelers can also aid in enhancing customer image. Offering test drives or demo programs can also give buyers a hands-on look, which can encourage them to make a purchase. In order to guarantee client happiness and loyalty, it is also essential to offer after-sales assistance and services. Partnerships with organizations and governments can also encourage the use of electric two-wheelers by offering subsidies and other benefits. To enhance consumer happiness and loyalty, producers have to consider providing customization options that accommodate individual preferences and demands.

VII. CONCLUSION

The study concludes by highlighting the importance of consumer perception and intention to purchase electric two-wheelers. The results imply that several factors, including cost savings, convenience, and environmental concerns, shape consumers' opinions of electric two-wheelers and ultimately determine their propensity to buy. Based on the findings, advertisers would do well to highlight the economical and environmentally beneficial features of electric two-wheelers in order to attract customers.

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