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A Study on Awareness and Preference of Electric Vehicle in Krishnagiri District

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ABSTRACT

This paper aims to map the consumer preference and awareness towards electric vehicle in Krishnagiri district. Every day we come across so many topics and articles which states the importance of electric vehicles. Many people using vehicles to complete their livelihood. Electric vehicles are right choice of alternative to fossil fuel vehicles. Most of the foreign countries are implemented the electric vehicles. Electric vehicles will reduce the pollution in all the surroundings. To prove, understanding consumer preference, explore consumer familiarity, identify the sources of information, and explore willingness to shift to electric vehicle. The statistical tools are used to investigate the fact which has been collected from 100 respondents at Krishnagiri district. The main aim of this study to find out of the level of consumer satisfaction and suggests them the means to improve the satisfaction level.

Keywords: Consumer awareness, preference, satisfaction level, electric vehicle.

INTRODUCTION

Electric vehicle is an eco-friendly electric and power-assisted bike. It is one of the fastest- growing technology of the bicycle industry. We all are living in the future. With time, technology has improved our lives. Now days, most of the countries are using electrical bicycle. the use of cycle than vehicles is always green to the environment, but an electric bike is the biggest adaption of green transportation of the decade. Just think of electric bike in place petrol operated scooters rather than normal bike. An electric bike users' rechargeable batteries which can travel up to 25 to 45kmph. Since the onset of pandemic, leading authorities-imposed lockdown restrictions and released a set of precautionary guidelines. Manufacturing units were temporarily shut down and disruption in supply chain was observed. Workers moved down to their native area which created shortage of workforce. The automotive industry including electric two-wheeler market faced a setback and post COVID-19, electric two-wheeler market is expected to pick up the pace eventually.All existing two wheelers that are in the market cause pollution and their fuel cost is also increasing day by day. To compensate the changing fuel cost and curb down the high pollution levels, a good remedy is needed. On the basis of my research, to know the growth of technology in 'electric vehicle' field, this has been found as an alternative unorder to present the nature. It also helps people in updating themselves along with the technology, from saving time to fuel electric vehicle has been playing major role. Though there have been many electric vehicles, the purpose of this paper is to investigate customer preference and awareness towards electric vehicle and to measure their satisfaction level and problem faced. It is extremely important in the view of marketers of the electric two-wheelers manufacturer to create awareness among customers about the importance of saving the environment.

STATEMENT OF THE PROBLEM

Every day we come across so many topics and articles which states the importance of E-vehicles and how electric vehicles have less part that leads to damage than a traditional non electric vehicles which means you save on operating cost. E-vehicles was environmentally friendly as they do not emit pollutants because drivers of Electric vehicles have reduced CO_2 emissions. The servicing requirements for electric vehicles are less than conventional petrol or diesel vehicles. Therefore, the yearly cost of running an electric vehicle is significantly low. Electric vehicles have the silent functioning capability has there is no engine under the hood. This study aims to know about the consumer awareness and preference level of electric vehicle.

OBJECTIVES

- To know the awareness levels of consumers on electric vehicles.
- To study the factors that influence customers to purchase electric vehicles.
- To find out consumer preference towards electric vehicles.
- To measure the Respondents satisfaction level.

SCOPE OF THE STUDY

- The present study is based only on the data pertaining to Krishnagiri District.
- This study is undertaken to understand the consumer Awareness about electric vehicle and how their preference showing towards the electric vehicle.
- This study will help to measure their satisfaction level and problem faced.

LIMITATIONS OF THE STUDY

- Data was collected only from KRISHNAGIRI DISTRICT result represents only small parts of population.
- There was limitation of time, in further research should be done with more varied sample and in detail with more geographically spread.
- As the data is collected through the questionnaire on online mode there may be possibility of, they may not fully loyal in answering the questions.
- Based on analysis most of the people are not more prefer as an electric.

RESEARCH-METHODOLOGY

- This study is descriptive to explore the consumer preference for electric vehicle.
- Both primary and secondary data were used in this study
- Primary data were collected using a questionnaire.
- Secondary data used for collecting information on published sources like Magazines, Books, Journals and Reports.

Geographical Area	KRISHNAGIRI DISTRICT
Population	Prospective customers at KRISHNAGIRI DISTRICT
Research Area	E-Transportation
Sample size	100 prospective customers
Sampling Method	Convenient sampling
Data Collection	Primary Data collection: Questionnaire
	Secondary Data Collection: Journals, Articles, Books, Magazines and Reports
Statistical tools	Simple Percentage Correlation analysis

REVIEW OF LITERATURE

AjaysinhParmar (2021)

"A Study on consumer perception towards Electric vehicle in vadodara city". This paper is aimed to capture the views, sentiments and perception on the awareness and likeliness to buy the vehicles so that sustainability in environment can be maintained. Every day we come across so many topics and articles which states the importance of E-Vehicles and how government around the world are implementing policies to promote E-Vehicles to reduce the dependences on oil, decrease greenhouse gasses and improve air quality. A major pollutant comes from Metropolitan cities and hence it is important for people living in these cities to understand and do their bit to reduce the consumption of life-threatening gasses and pollutants. we can conclude here that we fail to reject null hypothesis. It means that we have to accept the null hypothesis. Null hypothesis is that the significant are not more prefer as an E-vehicle. based on analysis we can say that the most of the people are not more prefer as an E-vehicle, they prefer other than E-vehicle.

ZA Lashari (2021)

"Consumers' Intention to Purchase Electric Vehicles: Influences of User Attitude and Perception". this study aims to investigate such factors with a particular focus on users' attitudes and perceptions. This study aimed to explore the factors affecting consumers' intentions to purchase EVs, focusing specifically on users' perception and attitude using survey data. The results of the logistic regression revealed that among the six variables of attitude and perception, four were statistically significant. In particular, the environmental benefits variable was found to be the strongest predictor of positive attitudes toward EVs.

SHWETA KISHORE (2020)

"A Study on Customer of Electric vehicles in India". viewed that potential scope of electric vehicle in India will be studied and consumer perception for same will be analyzed. This study has focused on both primary and secondary data of electric vehicles in India. Though the research found a potential scope of electric vehicles in India, still there is a scope for in depth study with greater number of samples and more factors.

SIMPLE PERCENTAGE

SNO	AGE	%	SNO	GENDER	%
1	18-25	52	1	Male	53
2	26-35	33	2	Female	47
3	36-45	14		**TOTAL**	100
4	46-60	1	SNO	**TYPE OF FAMILY**	**%**
	TOTAL	100	1	Nuclear family	53
SNO	**QUALIFICATION**	**%**	2	Joint family	47
1	Illiterate	4		**TOTAL**	100
2	Diploma	23	SNO	**AWARENESS**	**%**
3	Graduation	51	1	Yes	87
4	Post-Graduation	19	2	No	13
5	Other	3		TOTAL	100
	TOTAL	**100**	SNO	**CHARGING**	**%**
SNO	**RANGE**	**%**	1	2hours-3hours	18
1	60-80kms	27	2	3hours-5hours	51
2	80-100kms	49	3	5hours-7hours	24
3	100-120kms	18	4	Above 7hours	7
4	Above 120kms	6		TOTAL	100
	TOTAL	100	SNO	**COMPANY PREFER**	**%**
SNO	**PROBLEM FACED**	**%**	1	Revolt	4
1	Fire accidents	5	2	Hero Electric	13
2	Lack of mileage	34	3	Ather Energy	43
3	Not long-lasting battery life	18	4	Bajaj	6
4	Insufficient charging stations	22	5	Ola Electric	25
5	Maintenance and repairs	10	6	Green Electric	9
6	Temperature	11		**TOTAL**	100
	TOTAL	100			

CORRELATION ANALYSIS

Analysis between Qualifications of the respondents and Level of satisfaction.

X- Qualifications of the respondents.

Y- Level of satisfaction.

TABLE NO 1

ANALYSIS BETWEEN QUALIFICATION OF THE RESPONDENTS AND LEVEL OF SATISFCATION

X	Y	x^2	y^2	XY
4	8	16	64	32
23	42	529	1764	966
51	32	2601	1024	1632
19	5	361	25	95
3	1	9	1	3
100	100	3516	2878	2728

$$r = \frac{\sum XY - \frac{\sum X \sum Y}{N}}{\sqrt{(\sum X^2 - \frac{(\sum X)^2}{N})(\sum Y^2 - \frac{(\sum Y)^2}{N})}}$$

r = 1.14106

INTERPRETATION

Since the value is 1.14106, there is significantrelationship between theQualifications of the respondents and Level of satisfaction.

CORRELATION ANALYS

Analysis between age of the respondents and problem faced by the electric vehicle.

X- Age of the respondents

Y- Problem faced by the electric vehicle

TABLE NO 2

ANALYSIS BETWEEN AGE OF THE RESPONDENTS AND PROBLEM FACED BY THE ELECTRIC VEHICLE

X	Y	x^2	y^2	XY
52	5	2704	25	260
33	34	1089	1156	1122
14	18	196	324	252
1	22	1	484	22
0	10	0	100	0
0	11	0	121	0
100	100	3990	2210	1656

$$r = \frac{\sum XY - \frac{\sum X \sum Y}{N}}{\sqrt{(\sum X^2 - \frac{(\sum X)^2}{N})(\sum Y^2 - \frac{(\sum Y)^2}{N})}}$$

r = -0.01084

INTERPRETATION

Since the value is -0.01084, there is no significant relationship between the age of respondents and problem faced by the electric vehicle.

FINDINDS

➢ The majority (52%) of the respondents are 18-25 age group**.**

➢ The majority (53%) of the respondents are male

➢ The majority (51%) of the respondents are Graduation.

➢ The majority (53%) of the respondents are nuclear family.

➢ The majority (87%) of the respondents are aware of the brand.

➢ Most of the respondents (32%) are ola electric most aware of the brand.

➢ Most of the respondents (30%) are social media.

➢ The majority (50.5%) of the respondents are 3hours to 5hours it takes to charge fully**.**

➢ The majority (48.5%) of the respondents are 80-100kms**.**

➢ Most of the respondents (36%) for style this factor influences to buy electric vehicle.

➢ The majority (50%) of the respondents for less expense than fuel expense feature is most reasonable to buy electric vehicle.

➢ The majority (46%) of the respondents are useful for business purposes.

➢ The majority (43%) of the respondents belongs to Ather electric**.**

➢ Most of the respondents (32.3%) are prefer to charge there electric in home.

➢ Most of the respondents (30%) for awareness are the reason people are not interested in electric vehicle.

➢ The majority (77.3%) of the respondents are satisfy with electric vehicle.

➢ Most of the respondents (34%) for lack of mileage are problem faced by electric vehicle.

SUGGESTIONS

➢ Electric vehicle is used only for short distance because of low battery capacity, so manufacturers should concentrate on research and development to increase the capacity of electric vehicle.

➢ Another major problem in electric vehicle is the need for frequent charging of batteries, to overcome this problem charging centres should be opened at various places.

➢ Electric vehicle can make the world a better place to leave by reducing pollution at a higher rate.

➢ This change is possible only if electric vehicle companies and marketers can educate potential customer is the right way.

➢ Electric vehicle needs to create awareness and develop positive customer perception about their products.

CONCLUSION

The concept of electric vehicle has entered into krishnagiri in the past 3-4years. As an eco-friendly product it is more suitable for city as it can reduce the emission of harmful gases and thereby it can reduce the atmospheric pollution. Due to frequent increase in the fuel prices, the electrically charging vehicles seem to be the cheapest one compared to the traditional vehicle. electric vehicle is more suitable for rural areas where the numbers of petrol bunk are not adequate, so that the rural people can charging the vehicle with the help of electricity.

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