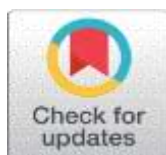




DETERMINANTS OF BUYING BEHAVIOR OF CONSUMERS TOWARDS E-VEHICLES

Smitha L ¹

¹ Assistant Professor, Department of Commerce, Government First Grade College for Women, Tumakuru Tumakuru District, Karnataka



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ABSTRACT

The purpose of the study was to examine customer perceptions of electric vehicles (EVs) and evaluate the factors influencing their decision to purchase one. The survey also aimed to ascertain the opinions of consumers in Bengaluru District regarding electric vehicles. Using a descriptive study design, a quantitative research approach was applied. Data was gathered by distributing a questionnaire to consumers of e-vehicles. The sample consisted of about 192 respondents and was selected by convenience sampling techniques. According to the study's findings, consumer's expected factors like reducing air pollution and greenhouse gas emissions, gender, refueling habits, the impact of government incentives and financial gains, Innovative Behavior, Media and Peer Influence, consumer serving as a source of information, affordability—both in terms of price and vehicle range—and Product Design are all positively influence with consumers' propensity to purchase E-vehicles. Technological elements that positively influencing with consumers' favorable perceptions of purchasing E-vehicles include Innovations and Invention, advancements in battery technology, price premium reductions, superior e-vehicle service, No noise pollution, Low maintenance cost, and energy independence through a decrease in oil imports.

Keywords: Consumer, Buying, Behavior, E-Vehicles, Bengaluru District

1. INTRODUCTION

The way that consumers view E-vehicles has changed significantly during the last ten years. At first, EVs were frequently linked to drawbacks including a short range, lengthy charging periods, and expensive initial costs (Kumar, Aditya. 2023). However, public perceptions have begun to shift as a result of technological advancements and the introduction of more practical and reasonably priced electric cars by automakers (Lashari, Zulfiqar Ali 2021). From being viewed as specialized or futuristic, EVs are now acknowledged as a practical and environmentally friendly mode of transportation. Concern over environmental concerns like air pollution and climate change is one of the main factors contributing to consumers' favorable perceptions of electric cars (PwC Report. 2018). Regarding electric cars, this refers to how buyers see EVs in terms of their functionality, range, pricing, environmental effect, charging infrastructure, and general appeal as a means of transportation (Indira. M. S. 2021). Numerous things, such as individual experiences, societal influences, marketing and advertising efforts, and governmental regulations, can have an impact on these impressions (José, C. 2023). EVs have zero tailpipe emissions, which appeals to customers who care about the environment. Concerns regarding the viability of EVs for everyday usage have also been allayed by the growth of renewable energy sources and the expansion of charging infrastructure (Shivabeerappa, M. and Divya, L. 2022). The development of battery technology, which has increased the range and performance of E-vehicles, is

another important aspect affecting customer opinion. The restricted driving lengths and slow performance of modern EVs have been allayed by their ability to provide range and acceleration that are equivalent to those of their gasoline-powered rivals. Building customer trust and confidence in E-vehicles requires addressing these issues and giving them accurate information (Zameel, I., and Aly, A.S. 2020). There are still issues with customer perception, though (Vidyabharati. 2019). The availability of charging infrastructure, the charging time, the initial expense of E-vehicles, and the possibility of battery deterioration over time are some frequent worries.

2. LITERATURE REVIEW

(Nagpal ,A. 2020) Given that a major portion of the demand for oil and gas originates from car owners, it was determined which significant and critical elements influence customers' intentions and actual purchase behavior with regard to E-vehicles (for Indian cities). According to the survey, Indian consumers' attitudes on EVs and their readiness to adopt them as a form of transportation while taking the government's stance on their entry into the country's transportation system into account. (Varghese, A.T. etal. 2021) According to the study's findings, over 60% of respondents want to purchase an electric car over the next ten years, indicating a positive trend toward EVs in the near future. The demand for power will rise annually, making it a difficult challenge to satisfy. for a significant decrease in CO2 emissions. (Ranjan, I., etal. 2022) The results showed that customers are opposed to buying EVs because they believe that monthly electric car charging is difficult and expensive. Because moving to an electric car involves costs, many who currently possess a vehicle are unwilling to do so. Some customers don't want to switch since they think gas prices are reasonable. (Malagi, A.K. and Ramya,S. 2022) In order to preserve environmental sustainability in places like Bangalore, the study focuses on gathering opinions, feelings, knowledge levels, likelihood, and perceptions on the purchase of electric automobiles. The chosen residents of Bangalore City make up the sample population for this study. The following are some of the factors that will influence a consumer's decision to buy an electric vehicle: product appearance, material quality, brand recognition, price, worthiness, marketing promotion, research and development, battery quality, complexity, charger station, battery risk, consumer behavior and awareness, and government support policy. Additionally, research is being done on lifestyle and demographic characteristics that influence the choice to buy an electric car. (Charles,V. 2021) The route analysis found that customer views of e-vehicles were influenced by the price of petrol and oil. It was also shown that customer perception and oil prices affect consumers' intents to buy e-vehicles. As technology develops and people's awareness of the environment increases, they are gradually switching to hybrid and electric cars for their daily travels. (Acharya, S., etal 2019) discovered in the study as well According to 58% of respondents, EVs are environmentally beneficial and appropriate for urban areas. Perhaps city dwellers are fully aware of the pollution caused by cars. The primary motivator for consumers to purchase an EV was its environmental friendliness, but the primary deterrent was a lack of knowledge regarding EVs. It was discovered that respondents cared about the environment and thought that EVs produced less air pollution than conventional cars. (Harikrishnan,V. and Praveenkumar, S. 2023) The study's conclusions showed that a variety of elements, including lifestyle, social influences, personal beliefs, and marketing communications, impact consumers' attitudes, perceptions, and preferences. Consumer preferences for electric car manufacturers are influenced by a number of important criteria, including availability, price, quality, and brand image. (Adhikary, A. etal. 2022) Most respondents believe that e-vehicles are a more ecologically friendly alternative, and this is a key factor in the decision to convert to e-vehicles. E-vehicles will also aid in reducing India's high levels of noise pollution, particularly in places with heavy traffic. (Muthukrishnan, R. etal., 2023) According to the study's findings, most respondents had a favorable opinion on electric cars. The majority's primary belief was that EVs are less expensive to operate. Selva, J. and Arunmazhi, R. 2020) The impact of these aspects is then explained after the relevant factors for consumer preferences have been categorized into groups, including socioeconomic characteristics, psychological factors, mobility circumstances, social influence, etc. The purpose of this descriptive study is to investigate customer preferences for E-vehicles in relation to the worldwide electric vehicle market. (Jose, S.P.etal., 2022) According to the findings, advancements in vehicle engine technology are contingent upon modifications to the infrastructure for fuelling, mobility, the global automobile market, energy price fluctuations, climate legislation, and the electrical industry. (Sankar,U. and Rajasekaran,R. 2019) The study's conclusions show that consumers' actions will support the e-vehicle market and benefit banks, insurance firms, dealers, oil bunks, and production facilities in the automotive sector. (The results demonstrate that consumer preference for E-vehicles is significantly influenced by knowledge about E-vehicles, government incentives, the availability of pure E-vehicles on the global market, the availability of charging stations globally, EV battery life, and environmental consciousness.

The second most preferred EVs cars is Attractive packaging which is 47 out of 100. The significant value of chi-square test is respectively 0.580 it means null hypothesis is rejected. And alternative is accepted. It means that there is significance relationship between priority towards EVs cars and Gender. (Kumar, P.etal. 2022) According to the study's findings, the majority of users expressed satisfaction with the electrical vehicles and gave positive feedback after using them. This is also very good for the future of the electrical vehicle industry in India, as the sector is still in its infancy and has room for significant growth. (Kumar, A. 2023) Respondents are open to accepting EVs as a future purchase option if adequate infrastructure is offered. Increasing client confidence is hampered by the initial cost of purchase, the scarcity of charging stations, and the time required to recharge the battery. (Campino, J. etal., 2023) Their study came to the conclusion that the two elements that have the biggest and most beneficial effects on purchase intention are attitude (affected by benefits, compatibility, and simplicity) and personal norms (influenced by efficiency). In the future, we can anticipate even better performance and results from electrical vehicles. (Tiwari, A., etal. 2022) The research found a significant relationship between the factors and the perception towards an electric vehicle, by testing out the various hypotheses. also influenced by education and income level to make a decision to buy an electric vehicle. (Rout, D. etal., 2020) Chain wheels and freewheels are incredibly dependable and reasonably priced power transfer systems. Although HEVs are slightly more expensive than traditional automobiles, they are more efficient and produce less pollution. (Masurali, A. and Surya, P. 2018) People believe that electric automobiles are somewhat expensive, need more maintenance, and take longer to recharge. When compared to other variables, people believe that electric automobiles have fewer options and a lower resale value. People's degree of awareness is greatly influenced by their level of education. The main percentage difference between those who are ready to acquire an electric car and those who are not is how they view performance, safety features, and the variety of options available. (Choksi, S. and Ayre,V. 2022) The findings explored that, majority of respondent of both Male and Female have selected Eco – Friendly fuel cars which is 53 out of 100.

3. RESEARCH PROBLEM

Understanding consumer attitudes, preferences, and concerns regarding EVs is essential for automakers, policymakers, and other stakeholders to effectively promote and support the transition to a sustainable transportation system. Consumer perception encompasses various aspects such as beliefs, attitudes, opinions, and behaviors towards a particular product or service. The automotive industry has witnessed a significant shift towards E-vehicles (EVs) in recent years. With advancements in technology and growing concerns about environmental sustainability, EVs have gained popularity as an alternative to traditional gasoline-powered vehicles. Consumer perception towards E-vehicles plays a crucial role in the widespread adoption of this new mode of transportation. There were no much research has been done on the consumer perception towards E-vehicles in Bengaluru District. Therefore, the present research has been taken up.

4. OBJECTIVES OF THE STUDY

- 1) To explore the impact of consumers expected factors on consumer's buying behavior towards E-vehicles.
- 2) To examine the influence of E-Vehicle Product Characteristics on consumer's buying behavior towards E-vehicles.

5. SCOPE OF THE STUDY

The present article is confined to study the consumer expected factors, E-Vehicle Product Characteristics leading to perception towards buying E-vehicles. This study has focused on both primary and secondary data of E-vehicles in India. though the research found a potential scope of E-vehicles in India, still there is a scope for in-depth study with greater number of samples and more factors.

6. HYPOTHESIS

H01: There is no significant impact of consumer expected factors on consumer's buying behavior towards E-vehicles.

H1: There is a significant impact of consumer expected factors on consumer's buying behavior towards E-vehicles.

H02: There is no significant impact of E-Vehicle Product Characteristics on consumer's buying behavior towards E-vehicles.

H2: There is a significant impact of E-Vehicle Product Characteristics on consumer's buying behavior towards E-vehicles.

7. METHODOLOGY

Regression analysis was used to find out the impact of consumer perception on the perception towards buying E-vehicles. The study is guided by a descriptive research methodology. Descriptive research is usually defined as a type of quantitative research; though qualitative research can also be used for descriptive purposes. The research design is developed to ensure that the results are valid and reliable. Primary data

The first time data has been through a self-administered structured questionnaire, which was developed and asked to be filled out. Personal interviews were also done with respondents. A structured questionnaire was prepared containing the statements ratings with five-point scale ranging from strongly disagree to strongly agree. "Strongly agree" was assigned a score of 5, "agree" a score of 4, "can't say" a score of 3, "disagree" a score of 2, and "strongly disagree" a score of 1 for conducting regression analysis.

1) Secondary Data

Peer-reviewed journals were considered based on their knowledge validity and their highest impact on the research field. Online E-Sources, Published reports, journals, theses, magazines, research articles, newspapers, etc. The following are the sources from which the secondary data was collected, such as information that has been gathered from selected peer-reviewed articles from bibliographic databases (Emerald, Sage journals online, Science Direct, Scopus, Taylor & Francis online, Web of Science, and Wiley (online library).

8. SAMPLE SIZE

The respondents are the users of E-vehicles in Bengaluru district. Convenience sampling techniques was used in the present study which helped in saving time and resources.

It indicates the numbers of people to be surveyed. Though samples give more reliable results than small samples but due to constraint of time and money, the sample size was restricted to 192 respondents.

9. RESPONDENTS

This survey was implemented by identifying the customers at the shopping malls and especially in parking places. Users of E-vehicles were requested to rate their perception on the towards buying E-vehicles. A structured questionnaire has been issued to the respondents to collect the data. The interaction was made with respondents who are users of E-vehicles in Bengaluru districts.

10. SCOPE OF THE STUDY

This research has been narrowed down to the study of consumer factors and technical factors affecting perception of consumers especially users of E-vehicles. The study has been conducted in some of the selected areas of Bengaluru such as South, North West and East Bengaluru. The study is particularly to know the influence of find out the impact of consumer factors and E-Vehicle Product Characteristics on the perception towards buying E-vehicles in Bengaluru district. The data collected for the analysis is from the financial year 2023-24.

11. DATA ANALYSIS—RESULTS AND DISCUSSIONS

11.1. CONSUMER EXPECTED FACTORS AND CONSUMER'S PERCEPTION

The linear regression analysis was run by using SPSS software to test the data collected for the analysis purpose. The data were measured by using a five-point Likert scale.

H01: There is no significant impact of consumer expected factors on consumer's buying behavior towards E-vehicles.

H1: There is significant impact of consumer expected factors on consumer's buying behavior towards E-vehicles.

Model Summary							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate			
1	.987 ^a	.915	.912	.27310			
ANOVA ^b							
Model		Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	178.955	15	11.323	165.952	.000 ^a	
	Residual	8.893	188	.068			
	Total	177.802	191				
Coefficients ^a							
Model			Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
1	(Constant)		-.499	.128		-3.879	.000
	Reduce Pollution		.178	.071	0.155	2.703	.009
	Customer's Gender		-.158	.049	-0.142	-3.228	.003
	Customers Qualification		-.013	.034	-0.015	-0.406	.688
	E-Vehicle for Small Distance		-.033	.043	-0.035	-0.778	.437
	Save fuel energy use Battery Energy		.069	.033	0.064	1.934	.056
	Government Support to buy E-Vehicles		.073	.025	0.078	2.929	.005
	Attitude of Environment Sustainability		.003	.035	0	0.068	.913
	Personal Attributes		.005	.056	0.003	0.091	.927
	Innovative Behavior		.065	.027	0.072	2.322	.021
	Media and Peer Influence		.359	.045	0.305	8.188	.000
	Pride in the Society		.219	.045	0.248	4.922	.000
	Increased fuel prices		-.089	.048	-0.113	-1.809	.072
	Product price and Range		.112	.036	0.116	2.819	.005
	Product Design		.251	.048	0.364	5.396	.000
	Product image		.029	.052	0.025	0.565	.571
a. Dependent Variable: Perception Towards E-vehicles							

a. Dependent Variable: Perception Towards E-vehicles

A multiple regression analysis was used to investigate the effect of 15 variables of consumer expected factors on consumer's buying behavior towards E-vehicles. From the above table it is understood that, that consumer expected factors ($R = 0.987$ indicating high degree of correlation among the variables, $t = -3.877$, $p < .01$) had a positively significant effect on consumer's buying behavior towards E-vehicles. Hence, it can be concluded that if the average level of consumer expected factors were high, the average level of consumer's buying behavior towards E-vehicles would also be high. The analysis also reveals that consumer expected factors were able to explain the total variation in customer satisfaction by the regression model about $R^2 = 95\%$ being high indicating model fits the data well. Thus answering the hypothesis **H1**: There is a significant impact of consumer expected factors on consumer's buying behavior towards E-vehicles, posited for this research is accepted. The coefficient table shows the contribution of each consumer expected factors of consumers. From the above table the beta values demonstrate the

unique contribution for the variables such as Reduce Pollution ($\beta=.178$, $p < .009$), followed by Gender ($\beta=-.158$, $p < .003$), Refueling behaviors ($\beta=.069$, $p < .056$), Government Support to buy E-Vehicles ($\beta=.073$, $p < .005$), Innovative Behavior ($\beta=.065$, $p < .021$), Media and Peer Influence ($\beta=.359$, $p < .000$), Pride in the Society ($\beta=.219$, $p < .000$), Product price and Range ($\beta=-.112$, $p < .005$), Product Design ($\beta=.251$, $p < .000$), in predicting consumer's buying behavior towards E-vehicles.

11.2. E-VEHICLE PRODUCT CHARACTERISTICS AND CONSUMER'S PERCEPTION

H02: There is no significant impact of E-Vehicle Product Characteristics on consumer's buying behavior towards E-vehicles.

H2: There is significant impact of E-Vehicle Product Characteristics on consumer's buying behavior towards E-vehicles.

Model Summary								
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate				
1	.973 ^a	.946	.941	.26923				
ANOVA ^b								
	Model	Sum of Squares	df	Mean Square	F	Sig.		
1	Regression	168.162	11	15.287	210.909	.000 ^a		
	Residual	9.640	178	.072				
	Total	177.802	191					
Coefficients ^a								
Model				Unstandardize d Coefficients		Standardi zed Coefficien ts	t	Sig.
				B	Std. Error	Beta		
1	(Constant)			-.633	0.114		-5.451	.000
	Outcome of R&D			.003	0.028	0.001	0.05	.958
	Innovations and Invention			.322	0.041	0.268	7.482	.000
	Advancement in battery technology			.188	0.039	0.224	4.717	.000
	Affordable and Supportive Prices			-.138	0.048	-0.176	-2.794	.006
	Availability of Service			.088	0.038	0.109	2.402	.018
	No noise pollution			.212	0.043	0.284	4.509	.000
	Mileage, Efficiency and Comfort			.013	0.052	0.008	0.202	.848
	Zero emission			.078	0.056	0.059	1.345	.190
	Low maintenance cost			.155	0.029	0.136	4.683	.000
	First Buyers			.026	0.054	0.028	0.485	.626
	Self-Dependency in fuel consumption			.188	0.052	0.2711	3.578	.001
a. Dependent Variable: Perception Towards E-vehicles								

a. Dependent Variable: Perception Towards E-vehicles

A multiple regression analysis was used to investigate the effect of 11 variables of consumer E-Vehicle Product Characteristics on consumer's buying behavior towards E-vehicles. From the above table it is understood that, that technological

factors ($R = 0.973$ indicating high degree of correlation among the variables, $t = -5.449$, $p < .01$) had a positively significant effect on consumer's buying behavior towards E-vehicles. Hence, it can be concluded that if the average level of E-Vehicle Product Characteristics were high, the average level of consumer's buying behavior towards E-vehicles would also be high. The analysis also reveals that E-Vehicle Product Characteristics were able to explain the total variation in customer satisfaction by the regression model about $R^2 = 94.6\%$ being high indicating model fits the data well. Thus answering the hypothesis **H2**: There is a significant impact of E-Vehicle Product Characteristics on consumer's buying behavior towards E-vehicles, posited for this research is accepted. The coefficient table shows the contribution of each E-Vehicle Product Characteristics. From the above table the beta values demonstrate the unique contribution for the variables such as Innovations and Invention ($\beta = .322$, $p < .000$), followed by Advancement in battery technology ($\beta = .188$, $p < .000$), Affordable and Supportive Prices ($\beta = .138$, $p < .005$), Availability of Service ($\beta = .088$, $p < .018$), No noise pollution ($\beta = .212$, $p < .000$), Low maintenance cost ($\beta = .155$, $p < .000$), Self-Dependency in fuel consumption ($\beta = .188$, $p < .001$), in predicting consumer's buying behavior towards E-vehicles.

12. RESEARCH FINDINGS

Consumer expected factors such as Reduce Pollution, gender, save fuel energy use Battery Energy's, Government Support to buy E-Vehicles, Innovative Behavior, Media and Peer Influence, Pride in the Society, Product price and Range, Product Design, are the variables have the positive relationship with consumer's buying behavior towards E-vehicles.

E-Vehicle Product Characteristics such as Innovations and Invention, Advancement in battery technology, Affordable and Supportive Prices, Availability of Service, no noise pollution, Low maintenance cost, Self-Dependency in fuel consumption are the variables have the positive relationship with consumer's buying behavior towards E-vehicles.

13. SUGGESTIONS

- 1) By increasing the number of charging stations, more people will be interested in purchasing E-vehicles.
- 2) Electric cars are easier to use, and everyone should be aware of the rumours and user evaluations. Raise awareness of global issues.
- 3) It is proposed that the government should implement suitable policies to promote the manufacture and use of e-vehicles.
- 4) spreading the word and raising awareness before urging people to switch to electric automobiles from combustion-powered ones.
- 5) The e-vehicle manufacturer asked to speak with the government about obtaining incentives and benefits for e-vehicles. It is also suggested to the government that to generate and supply adequate electricity power to encourage and manage e-vehicle.
- 6) Assess how government initiatives like tax breaks, subsidies, and infrastructure spending could promote or inhibit the use of electric cars. Analyze the potential effects of these regulations on consumers' opinions of electric cars as a practical mode of transportation.
- 7) From the standpoint of the consumer, list the main advantages and disadvantages of electric cars, including reduced fuel expenses, environmental friendliness, a shorter driving range, and higher initial expenditures.
- 8) It is advised that businesses have adequate infrastructure available so they can meet the needs of e-vehicles from throughout the nation.
- 9) The price of gasoline is steadily rising. The problem of rising gas costs may be resolved by using electric cars. The government's encouragement of E-vehicles will help the country's future growth.
- 10) The study's participants recommended that the establishment of e-vehicle infrastructure, including charging stations, should be based on the principles of cost and accessibility.
- 11) To engage and convince potential customers to embrace a new product or service, five adopter groups and unique marketing strategies are required.
- 12) The market for E-vehicles will grow in the near future as a result of price reductions.

- 13). It is recommended that firms make adequate infrastructure available so they can meet the needs of EV vehicles nationwide.
- 13) Since the majority of customers don't drive electric cars, it would be beneficial to increase consumer test drives so they can learn more about and experience them.
- 14) Since customers are still unaware about E-vehicles, it is necessary to update or modify the advertising plan to encourage the adoption of E-vehicles through internet media and advertising campaigns.
- 15) By reducing the need for crude oil and its exorbitant price, the government also gains from the development of E-vehicles.
- 16) Businesses should place a high premium on educating the public about new electric vehicle modes.
- 17) To help minimize environmental pollution, the government should offer incentives, tax breaks, and other measures to encourage the use of electric cars.

14. LIMITATION

The study is confined to finding out the influence of consumer expected factors and E-Vehicle Product Characteristics on consumer's buying behavior towards E-vehicles. There are other factors such as personal and marketing factors affecting buying pattern of customers towards E-vehicles that are not taken into consideration for the study. The samples are selected only from Bengaluru District. The firms might have been selected from other states of the country to achieve more reliability in the study. Objective measures would have been used to measure the variables selected instead of measuring the construct using subjective measures. Advanced statistical tools such as the chi square test, structure equation model, and Mann-Whitney "U" test might have been used to study the significant impact of consumer expected factors and E-Vehicle Product Characteristics on consumer's buying behavior towards E-vehicles.

15. DIRECTIONS FOR FUTURE RESEARCH

The variables related to consumer's personal factors and marketing factors can be tested on the satisfaction level of eco-friendly products users. Along with legal policies of the government, other variables such as external market environment, pricing, eco-friendly products promotion intensity, and integrated marketing communication related to eco-friendly products can be taken into consideration to build an integrated model for the consumer's perception towards buying eco-friendly products. Comparative analysis can be done between electric and combustion types of vehicle to study causes that make the manufacturers successful in marketing eco-friendly products.

Other product categories such as renewable energy, electrics, eco-friendly cosmetics, eco-friendly food and beverages, E-vehicles can be taken into consideration to find out the significant relationship of the concerned variables with consumer's perception towards buying behavior of the above listed products.

16. CONCLUSIONS

Consumer expected factors related to E-vehicles such as Reduce Pollution, Gender, Customers Qualification, E-Vehicle for Small Distance, refueling behaviors, Government Support to buy E-Vehicles, Attitude of Environment Sustainability, Personal Attributes, Innovative Behavior, Media and Peer Influence, Pride in the Society, Increased fuel prices, Product price and Range, Product Design and Product image were used to predict Perception towards buying E-vehicles. Customers must be aware of the new technology and believe it offers greater value than the current technology in order for it to be accepted. There are advantages and disadvantages to both electric and hybrid vehicles, but how we choose to view them is up to us. For that reason, we are conducting this study to understand what consumers think and whether they are willing to contribute to the preservation of a sustainable environment. Technological related to E-vehicles such as Outcome of R&D, Innovations and Invention, Advancement in battery technology, Affordable and Supportive Prices, Availability of Service, no noise pollution, High distance coverage with efficiency comfort, zero emission, Low maintenance cost, First Buyers, Self-Dependency in fuel consumption were used to predict Perception towards buying E-vehicles. Multiple regression and was used to understand the results. By building more infrastructure and focusing more on technologies

that can foster trust in E-vehicles, the Indian government and electric vehicle producers need to make greater investments in the societal acceptability of the vehicle. The government and automakers now bear the responsibility of creating consumer perception by providing the aforementioned facilities in tandem with their investments in vehicle manufacturing. This will help turn dreams into reality, encourage people to switch to E-vehicles, and protect the future from a number of respiratory issues, such as lung cancer, asthma, and other fatal illnesses. Additionally, it is advised that the government work to change prospective buyers' perceptions about EVs and market them as the way of the future.

The outcome makes it abundantly evident that the public is fully aware of the advantages of the environment.

CONFLICT OF INTERESTS

None.

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