

CONSUMER PERCEPTION TOWARDS ELECTRIC VEHICLES IN INDIA

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ABSTRACT

We recognize the importance of EVs and what actions governments around the world are taking to encourage their use to reduce oil consumption and greenhouse gas emissions and further improve air quality. I keep seeing so many topics and articles that express how Given the continued consumption of petroleum products and the resulting increase in costs, additional energy units are required for vehicle operation. The automotive industry is looking at electric vehicles as a business and environmental solution in India. Despite lawmakers' EV strategy, EV penetration in the current economy is fairly low. This article is expected to capture perspectives, feelings and insights related to mindfulness and probability of vehicle purchases with the aim of maintaining acceptance in the environment. This essay examines the various factors that affect a buyer's perception of electric vehicles in general and explores if those factors are related to that perception. This study also takes into account the many EV models that are now available and all of the factors that directly affect how well EVs are received in a nation like India. In this review, we also take into account the relationship between obstacles and the ability to distinguish toward EV. In order to determine this, we also used quantifiable tools and charts that were produced using a one-element ANOVA test.

Keywords: Electric vehicles, Consumers, Perceptions, Environment, Sustainable development India.

INTRODUCTION

Electric vehicles will be vehicles that are either to some degree or completely turned on electric power. Electric vehicles are steadily increasing. Operation is typically via a collector system that draws power from outside the vehicle. However, it is also possible for the vehicle to run entirely on its own battery (sometimes recharged via a solar charger), or to use power components and/or generators to completely convert petrol to electricity. Running costs are negligible as there are few moving parts that require maintenance. This car is intended to replace today's automobiles. Indeed, it can be used to address issues such as pollution, global temperature change, and normal resource consumption. The electric vehicle idea offers an obvious answer for the environmental issues of gas fuelled cars.

Electric vehicles are those that run on batteries that have been installed within the vehicle rather than on fuel. These batteries are used to power the motor, as well as the wipers, lights, and other accessories. The quantity of batteries in electric vehicles is more than that of a conventional fuel vehicle. The batteries are same as gas vehicle however the thing that matters is more batteries are utilized in it. The requirement for electric vehicles in this day and age is clear. The rising prevalence and utilization of electric vehicles is upheld by various benefits, including:

- (i) **Savings:-**Electric vehicles can be fuelled at very low costs, and numerous new vehicles will give amazing impetuses to practicing environmental safety, for example, cash back from the public authority. Electric vehicles could likewise assist you with setting aside cash in your day to day existence.
- (ii) **More Convenient:-**Charging an electric car is easy, and the best part is you don't have to stop at a gas station before the city riots. Electric vehicles can be charged at standard household outlets.
- (iii) **Safe to drive:-**Similar inspections and health regulations apply to gasoline and electric vehicles. Electric vehicles have a lower centre of gravity, which makes them more stable and safer to drive.
- (iv) **No emission:-**The biggest advantage of electric vehicles is their environmental friendliness. An electric car's motor is powered by electricity, making it a completely eco-friendly car. It runs on clean energy sources and does not emit harmful pollutants

or fumes into the environment. These are surprisingly better than crossovers in that they don't contribute to the surge in gas demand caused by half-and-halves. They help create a healthy and eco-friendly environment.

- (v) Low maintenance:-Electric cars utilize electrically determined motors, which disposes of the requirement for grease, everything connected to the burning motor, and a huge number of other upkeep obligations that accompany a gas motor. Thus, the expense of keeping up with these vehicles has diminished. You will not need to accept it to the technician as oftentimes as you would with an ordinary fuel controlled vehicle.

Electric vehicle development in India

The United Kingdom (UK) recently announced that after 2030 there will be no new petrol and diesel cars on sale at this time. Similarly, the UK is laying an important foundation for electric vehicles as part of its green strategy (see Electric vehicles). A decisive step like this could have implications for global green development. Additionally, the Indian government is considering replacing oil-controlled vehicles with electric vehicles. In 2017, authorities set out a blanket goal of making all vehicles electric by 2030. But opposition from the auto industry and fears of job shortages forced government agencies to reject the point.

Objectives of the study

- To investigate how college students feel about electric vehicles.
- To investigate how demographic characteristics affect how consumers see EVs.
- To comprehend the elements crucial to EV purchases in India.

LITERATURE REVIEW

Fanchao Liao, (2017) proposed a review "Buyer inclinations for electric vehicles" the boundless reception of electric vehicles might assist with reducing issues like contamination, an unnatural weather change, and oil dependence. EV infiltration, then again, is relatively low, in spite of states' forceful advancement measures. Consumer judgment, also known as customer insight, is described in the Business Terminology Reference as "a promotional idea related to a customer's impression, perception, or knowledge of a company or its products." A customer decision is an interaction with which a customer receives information. Interpret information

about products and create meaningful images of specific products. Customers form their opinions about products by viewing product-related advertisements, prior information, customer surveys, entertainment Internet her reviews, and more. The entire customer insight process begins when a customer sees or learns about your product for the first time. This cycle continues until buyers start leaving product reviews. Everything a company does influences customer decisions. Anything that influences customer decisions, from product placement in stores, to logo variations and shapes, to advertising and sales restrictions.

LingzhiJin, Peter Slowik, (2017) Although there are still many obstacles preventing widespread adoption of electric vehicles, the early market development for them is continuing. These barriers include the additional costs associated with new inventions, the relative burden of innovation when considering range and charging time, and consumer perceptions of the accessibility and feasibility of innovations. . This last element is often called “Buyer Mindfulness” and is very important.

Morton, C, Anabel, J orcidand Nelson, JD (2016) "Investigating Buyer Inclinations Toward Electric Vehicles" was suggested as a review. The government's ambition to move toward a low-carbon versatile framework is seen as progressing with the adoption of Electric Vehicles (EVs).corresponding to EVs, concentrates on which apply mental hypothesis involve a quickly developing and right now Significant group of writing looking at different profound or non-cognizant administrative cycles, yet with just free agreement concerning the variables arising as most straightforwardly or even in a roundabout way powerful on person's reception aim or conduct. This study utilizes a calculated structure to research the effect of shopper development and perspectives on the utilitarian characteristics of electric vehicles on detailed inclinations for these vehicles.

Mohamed M, G Tamil Arasan, and G Sivakumar, (2018) Electric motors will eventually replace internal combustion engines (ICEs), thereby reducing overall pollution and benefiting customers. This innovation is used in many countries to help improve the climate. The analyst recognized the openings and challenges associated with the introduction of EVs in India. Government impetus, batteries, corporations and climate change were all seen as valuable open doors. These topics considered factors such as the cost of EVs, their effectiveness in India, and interest in EVs. The introduction of electric vehicles in India is primarily aimed at reducing

petroleum costs and emissions from kindergartens. The government should seize the first opportunity that arises and look for practical solutions to the problems.

Pritam K. Gujarathi, Varsha A. Shah, Makarand M. Lokhande, (2018) The situation is different in India, where the current share of the EV/PHEV pie is around 0.1%. On the other hand, virtually all vehicles consider transportation based on petroleum derivatives. These pollute the environment through the release of ozone-depleting substances and cause unnatural changes in weather. The gap between domestic oil production and consumption is widening. India imports over 70% of its annual oil demand. Therefore, there is an urgent need to consider the factors and challenges for viable and cleaner alternatives.

Varghese, A. T., Abhilash, V. S., & Pillai, S. V. (2021) proposed a review that "focuses on customer choice and electric vehicle purchase expectations in India." The main objective of this study is to analyze customer insights and EV purchasing goals in India. As India grapples with nature, the government is creating an affirmative action to promote electric vehicles to help meet the UN's environmental goals to reduce emissions of ozone-depleting substances. Moreover, India is one of the world's largest automotive markets, and the electric vehicle market has promising potential for development. This study uses a quantitative methodology and review to explore the problem description. In this study, we experimentally verified the effects of variables that affect the degree of EV purchase willingness and EV purchase decisions of customers in India. This provides EV manufacturers and authorities with a bit of knowledge about the prerequisites for EV buyers in India.

THEORETICAL FRAMEWORK

Understanding Electric vehicles

An electric vehicle (EV) is a vehicle that is impelled by at least one electric engines or foothold engines. An independent electric vehicle might utilize a battery, sunlight based chargers, power devices, or an electric generator to transform gas into energy, or it might utilize a gatherer framework to draw power from sources outside the vehicle. Electric vehicles incorporate electric vehicles, electric trains, electric planes, and electric shuttle, to give some examples.

At the point when power was one of the favored techniques for engine vehicle impetus in the nineteenth hundred years, electric vehicles (EVs) first showed up. At that point, they offered a

degree of solace and comfort of purpose that fuel controlled vehicles couldn't coordinate. Gas powered motors ruled the impetus of vehicles and trucks for almost 100 years, however prepares and other more modest vehicles of different types kept on being generally moved by electric power.

History of Electric vehicles

1800's

Cars fueled by batteries are currently being tried by designers in a few nations. The primary electric vehicle is credited to Robert Anderson of the Unified Realm in 1832. In 1899, Belgian race vehicle driver Camille Jenatzy broke the speed of sound in his La Jamais Contente, an electric auto he personally made. The principal recorded US engine vehicle casualty happened on September 13, 1899, in New York, and involved an electric taxi.

1900's-1960's

EVs are planned with extravagant furnishings, decorative designs, timekeepers, and even magnificence packs for ladies. In contrast with fuel controlled vehicles, they are supposed to be calmer, cleaner, and less complex to work. Together, Henry Portage and Thomas Edison foster a 100-mile electric vehicle that is "reasonable and commonsense". Nonetheless, they ultimately abandon the task. The electric vehicle known as the P1 is made by Ferdinand Porsche.

Electric vehicles are turning out to be less and more uncommon as buyers decide for efficiently manufactured vehicles like Portage's Model T and other gas fueled vehicles. 100 Renault Dauphine vehicles are battery-worked in 1959 thanks to Public Association Electric Corp. The latest adaptations are known as Henney Kilowatts. A few organizations are making model vehicles in light of mounting worries about air contamination.

1970-1990's

In 1971 and 1972, NASA's electric Lunar Wandering Vehicle gave battery power a lift by bobbing around on the moon before the world. Automakers and the US Division of Energy started viewing at elective fills around the decade's end because of rising petroleum costs; GM

constructed a model metropolitan electric vehicle in 1973 and Sebring Vanguard delivered its CitiCar. An obliged reach and execution issues, nonetheless, forestall far and wide use.

As discharge regulations become more rigid, car makers are putting increasingly more accentuation on elective fuel vehicles. To lead a statistical surveying, GM delivered north of 1,000 of the smooth two-seaters and rented them to clients. The EV1 was presented in 1997. Additionally available to be purchased are the first crossovers made in quite a while. All electric vehicles utilizing lithium-particle batteries incorporate the Nissan Altra EV minivan, the Toyota Prius, the Honda Knowledge, and the Honda Understanding cross breed.

2000's-2010's

A large portion of the EV1s are demolished by GM. In 2003, Martin Eberhard and Marc Tarpenning laid out Tesla Engines. PayPal prime supporter Elon Musk drives an underlying \$7.5 million venture and is selected executive in 2004. In 2008, Tesla made the Roadster sports vehicle, the main electric vehicle (EV) underway to utilize lithium-particle battery cells.

The Leaf from Nissan is presently the most well known electric vehicle around the world. Tesla continues to add new items to its arrangement. Musk frames intends to contend with Daimler and BYD, a Chinese firm supported by Warren Buffett, by making an electric semi-truck. Because of China's accentuation on bringing down exhaust cloud and oil imports, which has driven many nearby makers and new businesses to battle for piece of the pie, China is the biggest EV market on the planet.

The future

By 2021, there will be in excess of 230 battery-fueled vehicles open around the world, claims Bloomberg New Energy Money. They will incorporate SUVs and pickup trucks like the I-Speed from Panther and the e-tron from Audi. Deals of electric vehicles will arrive at 1 million in the US by 2024, up from 104,000 out of 2017, and 3 million will have been conveyed in China. Also, to believe that it began in 1832 with Robert Anderson's electric carriage

Major Players in EV Market

Tesla

One of the top members in the electric vehicle market is Tesla, which was laid out in 2003 and has its base camp in California, US. Tesla plans, creates, makes, and sells energy age and capacity frameworks notwithstanding superior execution every single electric vehicle. The organization just appeared the Model 3, which has quickly ascended to the first spot on the list of top of the line vehicles in the country. After some time, the firm has shown that it is fit for making unquestionably inventive vehicles. The organization desires to manufacture a huge impression in the Asia Pacific region with the development of another creation office in Shanghai, China.

BMW

BMW is an overall auto fabricating organization with central command in Munich, Germany. It was laid out in 1916. The organization's four principal sections are vehicles, monetary administrations, motorbikes, and different endeavors. In the auto area, the business sells SUVs and vehicles. BMW likewise makes electric vehicles available for purchase, such the module cross breeds BMW i3 and i8. By 2025, the organization needs to give 25 electric vehicles, 12 of which will be all-electric.

Nissan Motors

Consolidated in 1933, Nissan Engine has its central command in Yokohama, Japan. The Nissan, Infiniti, and Datsun brands make Nissan Engine Organization a commonly recognized name in the car business. For a significant timeframe, its top-selling Nissan Leaf model overwhelmed the market, selling in excess of 200,000 units in 2016. The organization offers various vehicles and vehicle parts, motors, manual transmissions, extraordinarily prepared vehicles, modern hardware motors, and that's only the tip of the iceberg. The business likewise delivers battery-electric vehicles (BEVs) for its clients. With unrivaled new highlights such a greater battery and a 160 kW electric engine, expanded range (up to 363), and improved power (214 hp), Nissan revealed the Nissan Leaf In addition to display in 2019.

Volkswagen

Volkswagen was laid out in 1937 and is a notable automaker with its central command in Wolfsburg, Germany. Among the 12 brands claimed by the firm are Volkswagen Traveler Vehicles, Audi, SEAT, KODA, Bentley, Bugatti, Lamborghini, Porsche, Ducati, Volkswagen Business Vehicles, Scania, and MAN. The organization sells cars, minicars, SUVs, extravagance vehicles, supercars, and business vehicles. It makes various vehicles available for purchase, including diesel, gas, and electric models. The eGolf and e-Up are the brand's two most popular electric vehicles. In May 2019, Volkswagen expressed that pre-orders for the ID.3 — its impending full-electric vehicle — would open in Europe. It pulled in 15,000 enrolments in a brief timeframe, making up the greater part of the 30,000 pre-appointments generally speaking. By 2028, Volkswagen plans to worldwide present in excess of 70 every single electric vehicle.

BYD GROUP

One of a handful of the organizations with an emphasis on delivering business electric vehicles is BYD. It was laid out in 1995 and has workplaces in Guangdong, China. The organization's three essential business classifications are vehicles, handset and get together administrations, and battery-powered batteries and photovoltaic. A company called BYD works in the plan, creation, and collecting of various items. The organization has activities in China, the US, Europe, and India, among different nations. The association has made organizations all over the world with an emphasis on joint efforts. For example, Nobina, the biggest transport organization in Sweden and the Nordic area, added another 20 e-transporters from BYD to its growing request book in 2019.

CONSUMER PERCEPTION

Purchaser discernment, once in a while known as client insight, is a showcasing idea that incorporates a client's view of a business or its items, as per the Business Word reference.

Client discernment is characterized as a "Cycle in which an individual gets ecological information and deciphers that information considering necessities, prerequisites, and perspectives.

Client insight is the cycle by which a client assembles realities about an item and deciphers those realities to create an assessment on that particular item. Clients structure sentiments about items in light of what they find in ads, advancements, client audits, web-based entertainment remarks, and so on. At the point when a client first sees or finds out about a specific item, the total client insight process starts. Until the client starts to shape an assessment on the item, this cycle proceeds. Each activity a business takes will impact how its clients see it. Everything impacts how clients see a brand, including how the items are shown in a store, the varieties and states of the logo, the promotions, and the limits.

Factors influencing customer perception

As a general rule, a large number of elements can influence how clients see your business. Among the key components are:

- **Performance consistency** - How well has the brand acted previously and how well is it performing at present?
- **Emotional connection** - Incredible brands know that building a close to home bond with purchasers is fundamental for the development of their brands.
- **Marketing communications** - How a brand collaborates with shoppers through different media.
- **Holistic marketing** - A brand can't be extraordinary on the off chance that it has phenomenal deals work force however horrible help staff. A brand should fulfill clients across its touch focuses and be all balanced.
- **Personal experience** - Perhaps of the main variable that can undoubtedly straightforwardly affect client insight is private experience. In particular, our own encounters. The type of items and administrations matters when a client gets magnificent help or secures a fantastic thing.
- **Promotional campaigns** - Special missions are a urgent part of any association. To plan plugs that can rapidly influence individuals' view of a brand, huge moves should be initiated.
- **Influencers** - There are numerous powerhouses around us who can straightforwardly or in a roundabout way influence our reasoning. It can quickly modify a client's discernment.

- **Social media platforms** – In our mechanical age, most of individuals invest their energy on at least one virtual entertainment stages, where they can peruse to their souls' substance. At the point when you read tributes or comments about specific labour and products from an organization, your psyche mind settles on a decision on the spot.

There are four different stages of consumer perception

Sensation

Sensation is the term used to portray what happens when an individual's faculties are first presented to an item's outside upgrades. Shoppers' tactile receptors are animated side-effect or brand prompts through sight, sound, smell, taste, and surface. For example, Starbucks' tactile image promoting requests to every one of the faculties. At the point when a client strolls into a Starbucks café, they might hear the sounds and smell the fragrance of the new espresso being ground in the store. The store's unmistakable plan and ambient sound total the tangible experience of the hot or cold espresso and food items that can be delighted in inside at comfortable bistro tables.

Attention

At the point when an individual waits and dedicates mental handling capacity to an outside improvement from an item or brand during buyer data handling, consideration occurs. Purchasers participate in particular discernment when they centre around messages that are in accordance with their mentalities, convictions, and requirements. At the point when an item doesn't stick to these models, the client will quit focusing.

Interpretation

At the point when an individual gives a significance to the tangible experience, translation is what you get from an item or brand advancement. Assumptions and commonality further develop appreciation. A purchaser scans his memory for earlier connections with the brand or a comparable brand. the place where the plan of item bundling consolidates images, colours, and different parts that are equivalent to those of public brands that customers are much of the time more natural with the translation is generally utilized in brand promoting.

Retention

The maintenance stage, which denotes the finish of the purchaser discernment process, is described by the maintenance of item or brand data in both present moment and long haul memory. The point of advertising is to make good boosts in the former stages that proselyte into clients putting away information about the item or brand in long haul memory.

RESEARCH METHODOLOGY

Research Design

The review is led among shoppers to deduce their discernment towards electric vehicles. Study is led through dissemination of surveys on the web and a sum of 200 reactions was gathered. Engaging exploration approach is utilized.

Data Collection

Standard accepted procedures define information assortment as the process of gathering, estimating, and assessing accurate knowledge cubes for research. The major goal of information assortment is to make sure that accurate, information-rich data is collected in order to conduct factual analysis and make data-driven research decisions. With the help of a planned poll, the crucial data for this project was used. A few earlier explorations were also examined in light of this project. Using an electronic poll, the responses for the review and investigation were recorded. The majority of the respondents to the study poll were from Indian cities and towns.

- **Primary data:** Essential information will be data gotten from direct sources by a scientist, utilizing strategies like overviews, meetings, or trials. It is arranged, directly from essential sources, considering the exploration project. In examination with the term optional information, the data currently present is utilized.
- **Secondary data:** The term "auxiliary information" refers to data collected from persons other than the customer. Census data, information collected by government agencies, activity records, and data originally collected for various exploration ideas are known sources of complementary sociological data.

Research Instrument

The "survey" research tool used in the investigation was helpful and flexible in eliciting responses from the respondents. The survey is used with Google Structures. The survey comprises a range of closed-ended inquiries as well as inquiries using the Likert scale that were also created in response to a particular request.

Sample

As the name suggests, a more understated portrayal of a larger totality serves as an illustration. The selected respondents make up what is actually referred to as an example, and the decision-making process is known as testing. The example is primarily drawn from India's large urban centers.

Sample size

The size of the population and how representative you think the results are of the population as a whole will determine how many people participate in a study. This is the quantity of test units chosen from the universe to be investigated. There were 200 Indian respondents in the sample.

Hypothesis of the study

H1: The attitudes of the various age groups toward electric vehicles vary.

H0: Electric car perception is the same across all age groups.

H1A: People with varying degrees of education view electric vehicles differently.

H0A: Electric car perception is the same across all educational levels.

H1B: People from diverse socioeconomic backgrounds view electric vehicles differently.

H0B: Electric vehicles are seen similarly by people of all income levels.

DATA ANALYSIS AND INTERPRETATION

This study depends on the discernment and mindfulness of the Indian respondents, with a broad focus on the use of electric vehicles in large urban areas. Based on the factors that prevent

respondents from purchasing an electric vehicle early, the aim is to determine and analyze whether those factors actually influence the purchase of an electric vehicle.

Findings from the survey

According to the results of the overview, approximately 68.5% of respondents were men and an additional 31.5% were women. 48.5% of the respondents had completed a four-year certification, while 29% had completed a graduate degree, 8% had completed a PhD, and 14.5% had completed secondary school.

The analysis also determined that the respondents' ages ranged from under 25 to 50, with the youngest age group, under 25, representing 48% of the total, followed by 26 to 30 years, which accounted for 39.5%, 31 to 50 years, which accounted for 8%, and over 50 years, which made up 4.5%. Likewise we saw that as 47% of answers have caught wind of electric vehicles and 3% respondents have not found out about it.

Table 1: Demographic profile of the respondents

Characteristics	No. of respondents	% of respondents
Gender		
Male	137	68.5%
Female	63	31.5%
Qualification		
Undergraduate	29	14.5%
Graduate	97	48.5%
Post graduate	58	29%
PhD	16	8%
Age groups		
>25	96	48%
26-30	79	39.5%
31-50	16	8%
50<	9	4.5%
Awareness of Electric Vehicle		

Discovered	194	47%
Not discovered	6	3%

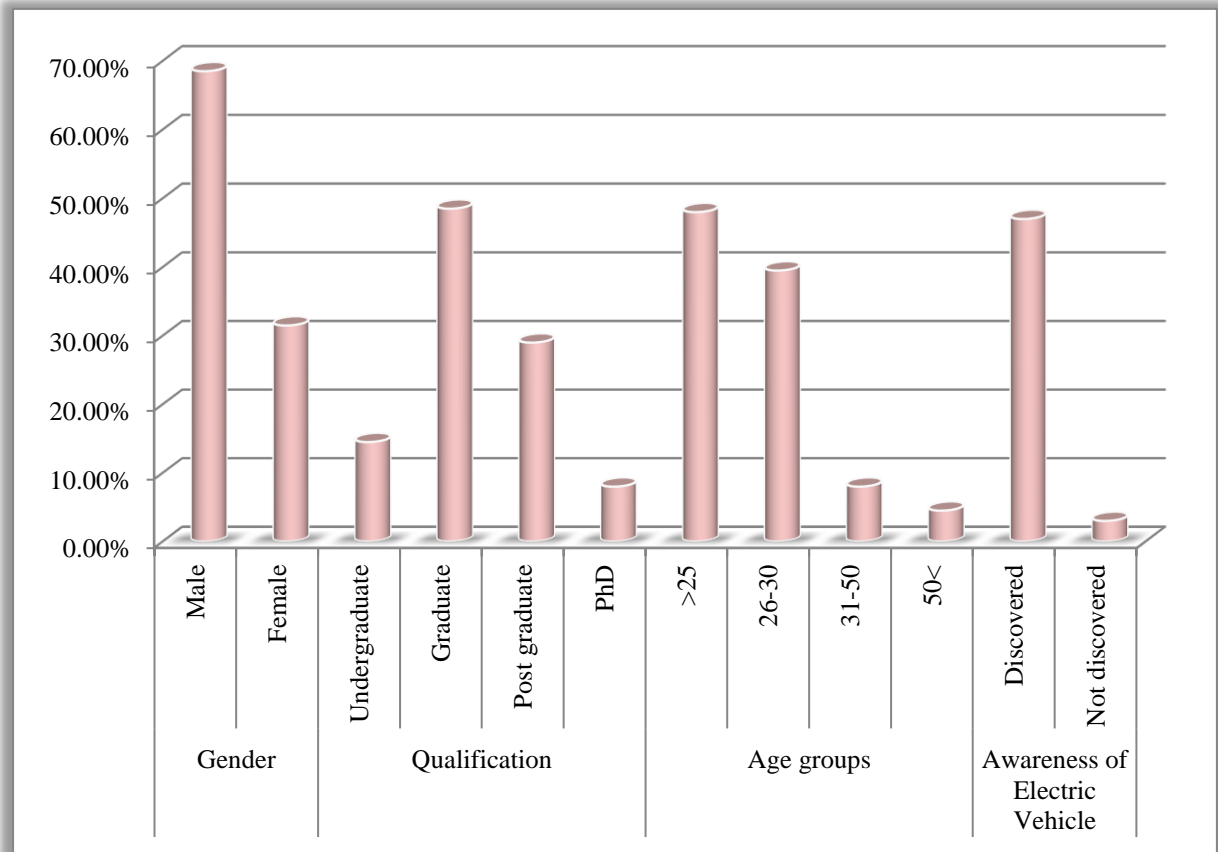


Figure 1: Graphical representation of demographic profile of the respondents percentage

Responses to the issues that prevented the adoption of EVs

Table 2: Elements affecting consumer impression negatively

Barriers	Percentage (%)
A few options for charging your automobile	36.7%
Limited time for driving	14.3%
Higher cost	19.4%
Consumer technology is lacking	24.6%
I have little faith in technology	16.0%

Testing of Hypothesis

Influence of age on EV perception

H1: The attitudes of the various age groups toward electric vehicles vary.

H0: Electric car perception is the same across all age groups.

Table 3: Summary

Groups	Count	Sum	Average	Variance
Column 1	169	198.27	5.85172376	0.6314643
Column 2	19	30	5.7	0.1809165
Column 3	0	0	0	0
Column 4	6	9.77	5.897	0.80147
Column 5	6	9.7	5.77	0.147

Table 4: EV perception statistics (depending on age group)

ANOVA						
Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	2.788193	14	0.21219977	0.36470210	0.86686663	2.5664753
Within Groups	31.5582457	186	0.57752360			
Total	34.3464387	200				

The table above shows that the F-value F is significant, which is 0.36 2.56, so we accept zero and reject the alternative hypothesis. Similarly, a p-value $> 0.86 > 0.05$ indicates acceptance of zero and rejection of the alternative hypothesis.

Impact of education level on how EV is seen

H1A: Different educational levels have various views on electric vehicles.

H0A: Electric car perception is the same across all educational levels.

Table 5: Summary

Groups	Count	Sum	Average	Variance
Column 1	0	0	0	0
Column 2	4	5.77	5.77	0
Column 3	133	175.7	5.7641	0.6561
Column 4	59	60.7	5.11	0.34879
Column 5	4	5.77	5.77	0

Table 6: Statistics about EV perception (depending on consumer education level)

ANOVA						
Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	2.290260895	14	0.08773	0.13935	0.99533	2.56649
Within Groups	32.05617763	186	0.58694			
Total	34.346438525	200				

Table 6 indicates that we should accept the null hypothesis and reject the alternative hypothesis because the F stat is less than the F crucial, or 0.13 to 2.56, and the p value is more than 0, or 0.99 to 0.05.

Impact of income level on how EV is perceived

H1B: The perceptions of electric vehicles vary according to income levels.

H0B: Electric vehicles are seen similarly by people of all income levels.

Table 7: Summary

Groups	Count	Sum	Average	Variance
Column 1	108	174.77	5.83897	0.6996493

Column 2	50	37.77	5.597	0.2570078
Column 3	38	29	5.87734411	0.20472510
Column 4	0	0	0	0
Column 5	4	7	7	0

Table 8: Statistics on EV perception (depending on consumer income level)

ANOVA						
Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	2.58940615	14	0.162503	0.2738256	0.926311	2.56649
Within Groups	31.7570326	186	0.5812745			
Total	34.34643875	200				

We shall accept the null hypothesis and reject the alternative hypothesis because, as shown in the table, F stat F critical is 0.27 2.56 and p value > is 0.92 > 0.05.

Table 9: Perception of customers towards electric vehicles

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
EV are restricted to few modes	5%	16%	20%	50%	17%
EV can't drive as fast as normal cars	7%	16%	19%	47%	18%
EV is not safe to drive	15%	35%	34%	18%	13%
Maintenance cost of EV is less	10%	21%	19%	38%	19%
EV only suit for city limit	9%	15%	17%	60%	19%
EV is completely eco-friendly	5%	8%	15%	37%	55%

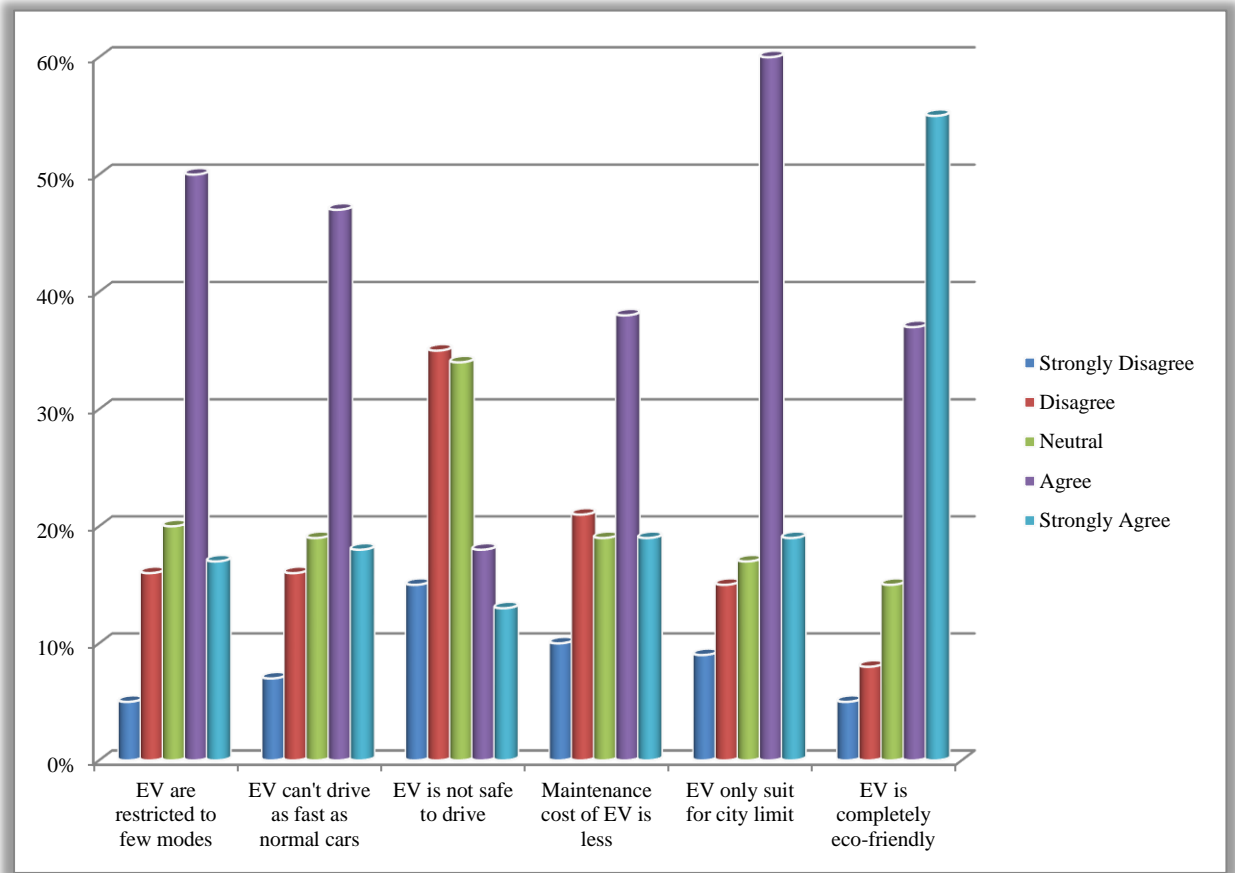


Figure 2: Graphical representation of consumer’s perceptions towards electric vehicles

DISCUSSION

This study aimed to identify the factors that influence Indian consumers' judgment on electric vehicles and the extent to which those factors affect consumer perceptions of the product. Various criteria were considered as factors influencing the buyer's image, including the segment, the buyer's educational background, and the customer's wage level. By testing several hypotheses, the study found a significant correlation between that factor and the understanding of electric vehicles. This proves that consumers' electric vehicle purchasing decisions are influenced not only by segment-specific factors, but also by their level of education and income. The majority of respondents were convinced that buying an electric vehicle makes sense. The importance of these criteria for predicting EV preference can be attributed to two things.

It will certainly influence EV acceptance as much as the strategy debate. Urban EV communities around the world are enforcing policies such as efficiency standards, emission limits for zero to low-emission vehicles, and a focus on charging infrastructure. An effective EV strategy helps build trust among private operators, and a practical framework drives interest in EVs. With the integration of charging points within the framework of notoriety, public charging points could be expanded across the country. In addition to Tier 2 urban areas and highways, Tier 1 urban communities will also have charging stations. One of the customer's biggest concerns should be resolved and the India Foundation's loading points would be greatly improved. The thrust and sponsorships Notoriety provides are intended to significantly accelerate the development of new plastics and battery materials. With the help of mass production and the ability to build EVs at a cheaper cost, this technique will enable manufacturers to produce them for less money overall. This means that electric vehicles will become very popular and more people may start buying them.

Customer optimism for electric vehicles has been influenced by lower CO₂ emissions, lower maintenance costs, government agency restrictions, projects and agreements. This indicates a growing positive perception of electric vehicles and further confirms actual purchasing behaviour towards electric vehicles. True to form before the actual exploration, it is found in the examination to 60% of respondents feel EV is eco-accommodating and it is reasonable for city limits. Maybe individuals in urban communities are very much aware of contamination via cars. Many are confronting parcel of medical problems.

CONCLUSION

Contaminated surface water is believed to be linked to cholera outbreaks in Kenya. Residents usually used the lake water to know the condition of the processed rice. Locals also used the water from this lake for cooking and washing utensils and vegetables. They scavenged for water in these two lakes and had a hobby of murmuring while bathing in this water. Residents near these lakes were more affected than more distant districts. A group in Orissa found that wells (shallow groundwater sources) were contaminated with *Vibrio cholerae* and that people near the site were affected more than farther away. Cholera epidemics usually occur in the early summer season. Warm atmospheric conditions favor its spread and are usually mediated by vain oral administration. Water was scarce in this pre-summer season. There was a limited

amount of water in the lower part of the lake. Only four stool samples were collected. We were unable to collect more than four stool samples, as this incident had been previously claimed by enemy contamination experts.

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