

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

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# A Study on Indian Users Perception Towards Electric Vehicles

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**Abstract:** Consumers have little problem accepting EVs as their everyday mode of transportation, but declining availability of fossil fuels for consumers to return is one reason for rising gas/diesel prices. Yes, and EVs have proven to be a promising solution. With automakers clearly aware of near-term shortages due to increasing economic, environmental, and governmental laws and regulations, electric vehicles have emerged as the only hope for the long journey in the automotive industry. Although the Indian government is encouraging citizens to switch to electric vehicles by offering tax cuts, the current market share of electric vehicles is still relatively small. Through this research, we seek to determine the size of EVs in the Indian market and the perceptions of Indian consumers of different age groups towards EVs

## **Objective**

The objective of this research is as follows:

- 1) To understand consumer perception.
- 2) To study factors which is important for the purchase of EVs in India

**Keywords:** Electric vehicles, Consumer perception, Choice of vehicle, Environment, Conventional vehicle, Government policies.

## I. INTRODUCTION

The Indian electric vehicle market appears to be gaining traction as tech giant Tesla has expressed interest in setting up a manufacturing facility in India. Following in Tesla's footsteps, a number of Indian companies have opened electric vehicle manufacturing facilities in India. The Indian government's dream of independence cannot be achieved by magic spells. It requires patience, reliable technical support, and a forward-thinking approach. One branch after another. The Indian government clearly understands that the future is electric vehicles and lithium batteries. India has set goals for itself and the world. In 2021, more than 6.6 million of her electric vehicles have been purchased worldwide. India wants to be part of it, and with good reason to do so.

- A) Because electric cars are the future.
- B) India needs clean air as 21 of the 30 most polluted cities in the world in 2019 were in India. The Indian government is taking this seriously. In 2019, the government announced tax cuts to encourage Indians to buy electric vehicles. As a result, sales increased by 20% in one year. 2022 is considered to be a pivotal year for the electric two-wheeler industry in India. Major automakers have launched electric vehicles in the Indian market and retail outlets. Experts predict that number will increase another 30% in this decade.

## II. RESEARCH METHODOLOGY

- Conduct research using descriptive research methodologies.
- A series of questionnaires were prepared to conduct the survey
- Primary data from a sample population of 100 participants were collected using an online questionnaire.
- Analysis of collected response data was performed
- Subsequent conclusions were constructed based on the data collected





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#### III. FINDINGS

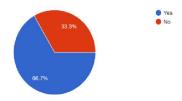
The survey was conducted with consumers of different age groups residing in different states of India. This study explores consumer perceptions of EVs, whether consumers use greener vehicles than gasoline ones, whether younger generations are more inclined to power and performance than to understanding environmental risks, and whether EVs It focuses on knowing the factors to consider before purchasing. Eg: Electric car

## Q. Are you aware about Electric Vehicles running in India:

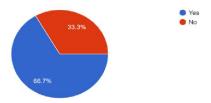


Sample audience, 93.3% of the audience said they are aware about the Electric Vehicles running on the road of India and 6.7% which is only 2 participants said they are unaware about the Electric Vehicles running in India.

## Q. If you are planning to purchase a vehicle, would you think of purchasing an Electric Vehicle?

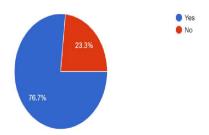


When asked if planning to purchase a vehicle will go for EV, out of 30 participants 20(66.7%) straight away said yes, while the remaining 10 (33.3%) said no, which means they will purchase fuel-based vehicles.



## Q. Do you think Electric Vehicles are the need of the current era?

66.7% of the audience believe Electric vehicles are the need of the current era, while the remaining 33.3% think fuel based vehicles are still good enough.





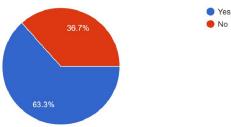


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## Q. According to you, are EV's more economical than normal vehicles?

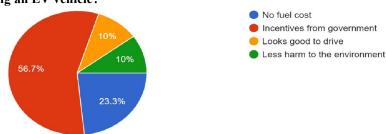


6.7% participants think Electric Vehicles are more economical compared to normal vehicles and 23.3% audience still thinks normal vehicles would be more budget friendly, especially in the time when petrol prices are around 120 rs per liter.

## Q. Do you think you can rely on an Electric vehicle?

63.3% of the audience said they can rely on Electric Vehicles whereas 36.7% still can't completely trust on electric vehicles.

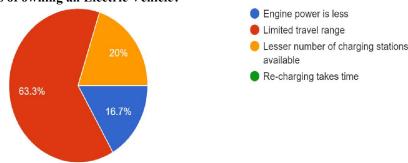
## Q. Reasons for purchasing an EV vehicle?



When asked the reasons for purchasing EV vehicles.

Majority of the audience (56.7%) said they would purchase it because of government incentives, while the 2<sup>nd</sup> highest share is for no fuel cost (23.3%). The last two share looks good to drive and less harm to the environment has equal amount of share of 10% each.

# Q. What are the downsides of owning an Electric Vehicle?



As per the audience the major downside of purchasing an EV is Limited travel range (audience are worried about the less travel range in Electric Vehicles, as they can't use it for long touring purposes), while 20% selected a lesser number of charging stations. Which is again connected to the range of the vehicle. Lastly only 16.7% showed the worry about the less power provided by the engine and surprisingly none of them selected re-charging takes time. Thus, that point is completely ruled out.



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#### IV. MAIN CONTENT

## HSBC Mutual Fund to Acquire L&T MF: What This Means for Investors ...?

L&T Finance Holdings Limited and HSBC Asset Management (India) Private Limited (HSBC Mutual Fund) announce that HSBC Asset Management Company has entered into a definitive agreement to acquire 100% of the shares of L&T Investment Management Limited, an investment management company. The total purchase of the L&T Mutual Fund (L&T MF) is USD 425 million (approximately Rs 3,192 billion). The transaction is subject to the necessary regulatory approvals. Both L&T MF and HSBC MF fund companies will ensure continuity of service to investors and counterparties for the foreseeable future.

"The HSBC transaction is in line with our strategic objective of extracting value from our subsidiary and will help strengthen the balance sheet of our lending business. It gives us enough ammunition to increase the pace of retaliation across our loan portfolio, which is," said Dinanath Dubhashi, Managing Director and CEO of L&T Finance Holdings. Over the past decade, the L&T Mutual Fund has earned the trust of its various stakeholders, backed by its consistent and stable performance. "This year's move from a few thousand rupees to over 80,000 rupees in AUM speaks to the strength of the L&T brand," he adds.

## **How Will This Impact Investors?**

When a fund house is sold or merged with another fund house, the similar facilities of both fund houses are combined. For example, equity funds will be integrated into the new company's equity plan. Similarly, Debt, Hybrid, and all other systems of the same system type are merged into the new entity. This may lead to changes in fund management and changes in the fundamental characteristics of the fund. This affects fund performance, but not always. In this case, after regulatory approval, the L&T MF scheme will be referred to as the HSBC MF scheme. Sources in his one of the two fundhouses said the transaction would move the entire fund management team along with plans, so there may not be any major fund management changes.

However, it is only after approval that it becomes clear. Experts say it is premature as the merger process will begin with regulatory approval. Investors should therefore continue to invest, but keep an eye on future developments. Electric vehicles in India:

## Market analysis including consumer perspectives, policies and issues.

Research shows that the Indian market scenario is quite different from overseas markets. This is because the current share of EV/PHEV is around 0.1%. The report suggests that the increased use of fossil fuel-based transportation is polluting the environment by releasing toxic greenhouse gasses, which lead to problems such as global warming. The report shows that the gap between consumption and domestic oil production is widening by the day, with India relying on oil producing countries for 70% of its annual oil demand. There is therefore an alarming need to find sustainable alternatives for a healthy future.

# Potential Need for Electric Vehicles, Charging Station Infrastructure and its Challenges for the Indian Market

Governments should create more charging stations in towns and cities, encourage citizens to charge at home, and develop road rules and electric vehicle laws to ensure pedestrian safety. A smooth integration of the energy and transport sectors is necessary. Promote EV adoption through innovative programs and programs such as tax breaks for EV drivers, discounts on EV purchases, and free parking.

## **International Clean Transport Council**

EVs can easily grab a large market share, but many obstacles remain unresolved. These obstacles include the additional cost of adapting new technology, inconvenience in routine maintenance of vehicles such as charging time, energy consumption and range. These barriers can have a significant impact on consumer decisions to purchase an electric vehicle.





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#### V. LITERATURE REVIEW

Data analysis refers to the process of organizing and analyzing collected raw data so that it can be presented as meaningful and easily understandable information. Data analysis can be approached in many different ways, but it is convenient and easy to manipulate the data to emphasize or advance biased intentions and conclusions. Therefore, care should be taken in presenting the analyzed data and the process should be unbiased.

Raw data comes in a variety of formats, including: B. Measurements, Survey Responses, and Observations. In such a format it is difficult and overwhelming to understand and draw conclusions from. For data analysis, the raw data are arranged in an easy-to-understand manner. For example, you can tally poll results to easily see how many people voted and how they answered a particular question.

Several trends can emerge in this process of organizing the data, so modeling the data using mathematics and other tools such as Excel and SPSS can help researchers understand complex data in a meaningful way., making it easier to present in the following format: Charts, graphs, and text descriptions. Presenting the data in this way allows the audience to understand the findings at a glance.

#### VI. CONCLUSION

From the findings of the research, it may be concluded that, even though majority of target target market are privy to the Electric Vehicles and their advantages best 63.3% target target market trust they could absolutely depend upon the EV and out of a pattern set of 30 members best 20 thinks of buying EV as their subsequent Vehicle. Though the majority of target market trust Electric Vehicles are greater reasonably priced compared to Normal fuel-primarily based totally automobiles, nevertheless 50% of target market search for greater energy as a substitute then mileage that's a downside in EV's.

Majority of human beings are attracted in the direction of shopping for an electric powered automobile due to the authorities' schemes and tax reliefs that are thoroughly deliberate via means of the authorities to inspire residents to transport in the direction of EV in subsequent 10 years. We can say that the concept utilized by the authorities is simply running out to make human beings attempt new matters and flow in the direction of greater sustainable solutions. The best important drawbacks highlighted via way of means of the target target market is the restricted tour variety furnished via way of means of the EV's, as touring lengthy distance in EV might be a undertaking in India because the infrastructure isn't always but construct to help EV automobiles and the important cause is a smaller variety of charging stations to be had withinside the country.

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