

Electric Cars for SDG Attainment – An Empirical Study on its Awareness & Perception in Chennai City

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ABSTRACT

Electric Car is no more luxury Product targeted only to Elite Consumers but they meet the needs of all categories of consumers as being available in different price ranges with basic model starting from 4.3 Lakhs. But its acceptance and adoption rate is very minimal far behind the requirement in spite of government Incentives & Subsidies. The main aim of the study is to know the awareness & Perception of Consumers in Chennai City towards Electric Car and its contribution to SDG. 141 Consumers are surveyed; 75% of them are only aware of Electric Car. SDG awareness is very minimal (less than 10%) Electric Cars contributes to SDG – less than 5% are only aware in Metropolitan Chennai City. Electric Cars are perceived as status symbol and Luxury Product with high Price among Chennai Consumers...

INTRODUCTION:

Electric Car is gaining momentum in India in the recent past due to its Environmental and Societal Benefits. Electric Cars are the substitution to Conventional Petrol/Diesel/CNG Cars worldwide. Though it was branded as high rated product, but it has now become a common product at affordable and economic price ranges. E-Cars is no more luxury product to Premium & Elite Customers but its need, necessity, Technology used, In-Built features, environmental benefits make it an essential product for every household.

Need for the Study:

1. Electric Car brands are gaining popularity in India with its new models and manufacturing units set in India, hence need to be studied.
2. International Electric Car Brands (Tesla, VinFast) have entered Indian market hence, its awareness & Perception among Indians need to be studied.
3. E-Vehicles acceptance is less in India, but no choice to Indian consumers, hence their Perception needs to be studied.

REVIEW OF LITERATURE:

(Bureau, 2025) The Hindu Newspaper Article dated 2nd March 2025, whereby Delhi Environment Minister announced “No Fuel” to overage vehicles i.e., Petrol Vehicles over 15 Years and Diesel Vehicles over 10 Years will be denied Fuel from 31, March 2025 as a measure to control Air Pollution and to replace CNG buses with e-buses.

(Mathur, 2024) Main aim of the study is to find the future of electric Cars in India, whether it is favourable or not. The study concludes the Electric Car have a favourable

future in India but, Indian Consumers are not aware of its functionality & efficiency. Thus, Manufacturer have got a key role in creating awareness among Indian Consumers.

(Tamilnadu, 2023) the main objectives of the policy are to transform Tamilnadu into the preferred destination for EV manufacturing in South – East Asia, to accelerate adoption of Electric Vehicles in Tamilnadu, To Enhance the development of the ecosystem in Tamilnadu and to develop Electric Vehicles Cities in Tamilnadu.

Objectives of the Study:

1. To study the level of awareness about Electric Cars among Chennai Consumers.
2. To identify the level of awareness about different brands & Price ranges of E- Cars.
3. To determine the level of awareness about Sustainable Development Goals and how Electric Cars contributes to its attainment.
4. To list Government Schemes through Incentives & subsidies to promote electric Car.
5. To know the perception of Chennai Consumers towards Electric Cars.

RESEARCH METHODOLOGY:

To collect data both Primary & Secondary source was been made use of. Under Primary source, Personal Interviews and Google Forms are used; Under Secondary source, Government website & Newspaper articles are used.

Research Design: Applied Research Design was used for the study

Population /Target Audience: Consumers of Chennai City.

Sampling Technique: Probability Sampling - Stratified Random Sampling was used. **Sample Size:** 141 Consumers from different parts of Chennai city are surveyed. **Statistical Analysis:** Collected data are analysed using SPSS 23.

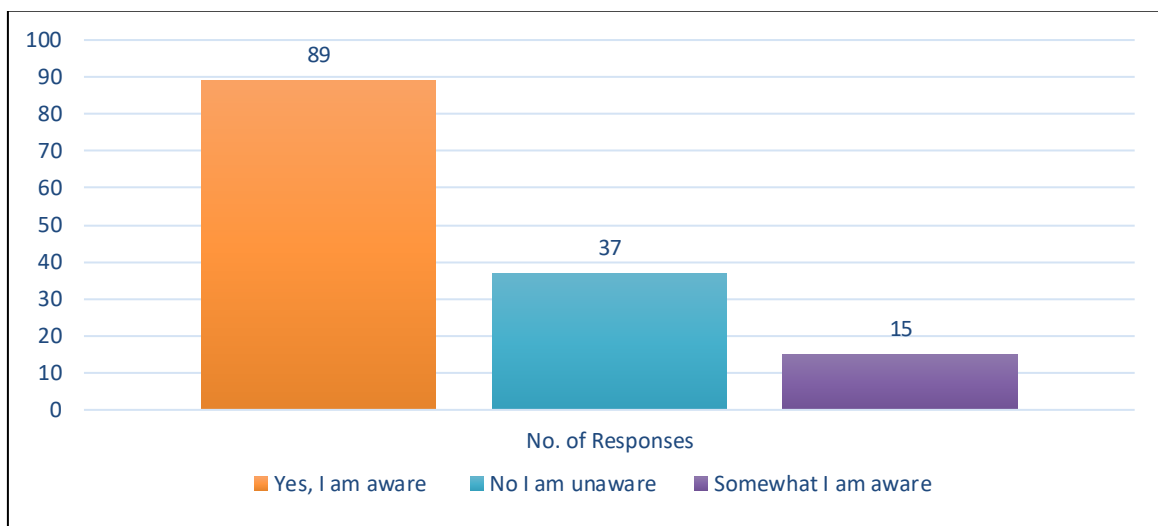
Tables & Interpretation:

Table - 1 - Table showing Consumers Awareness about Electric Cars in Chennai City

S. No	Particulars	No. of Respondents (Out of 141)	Percentage (100%)
1.	Yes, I am aware of E-Cars	89	63.12
2.	No, I am not aware of E-Cars	37	26.24
3.	Somewhat I am aware	15	10.64
Total		141	100.00

(Source: Questionnaire & Google Form)

Chart - 1 – Chart showing Consumers Awareness on Electric Cars in Chennai City



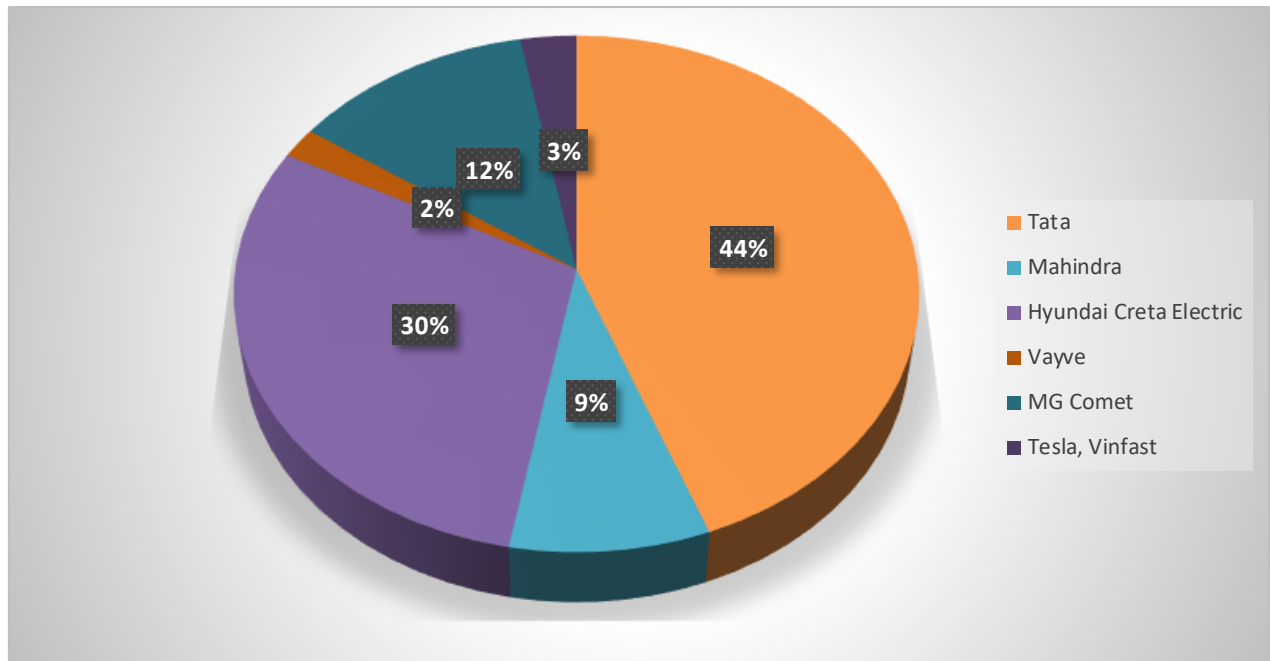
(Source: Table -1)

Table - 2 – Consumers Awareness on Brands of Electric Cars in Chennai City

S. No	Particulars	No. of Respondents (Out of 104)	Percentage (100%)
1	Tata	46	44.23
2	Mahindra	9	8.65
3	Hyundai Creta Electric	31	29.81
4	Vayve Electric Car	2	1.92
5	MG Comet (Green Coloured)	13	12.50
6	Tesla, VinFast	3	2.88
Total		104	100%

(Source: Questionnaire & Google Form)

Chart - 2 – Consumers Awareness on Brands of Electric Cars in Chennai City



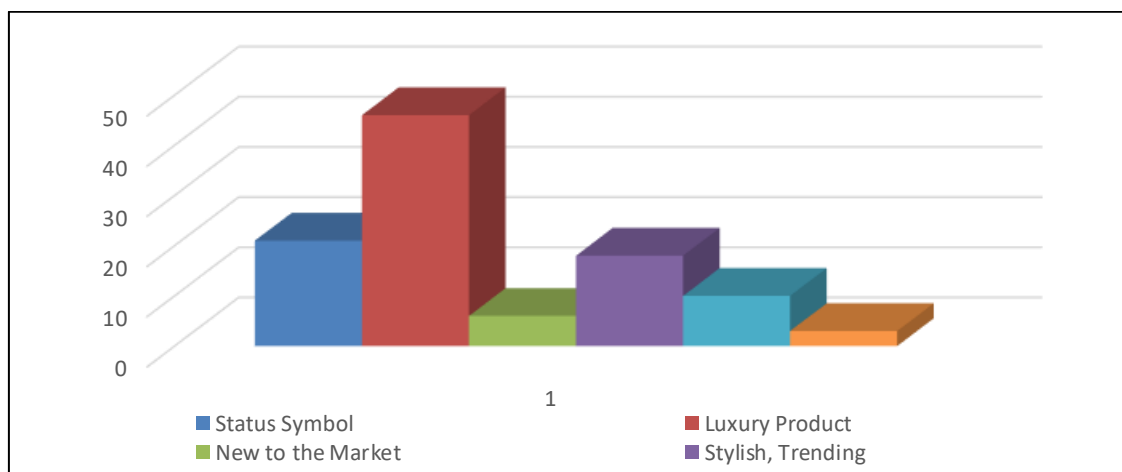
(Source: Table -2)

Table -3 – Table showing Perception of Chennai Consumers towards Electric Car

S. No	Particulars	No. of Respondents (Out of 104)	Percentage (100%)
1	Status Symbol	21	20.19
2	Luxury Product with high Price	46	44.23
3	New to the Market	6	5.77
4	Stylish, Trending	18	17.31
5	To Save Fuel Cost	10	9.62
6	Product for Rich People only	3	2.88
Total		104	100%

(Source: Questionnaire & Google Form)

Chart -3 – Perception of Chennai Consumers towards Electric Car



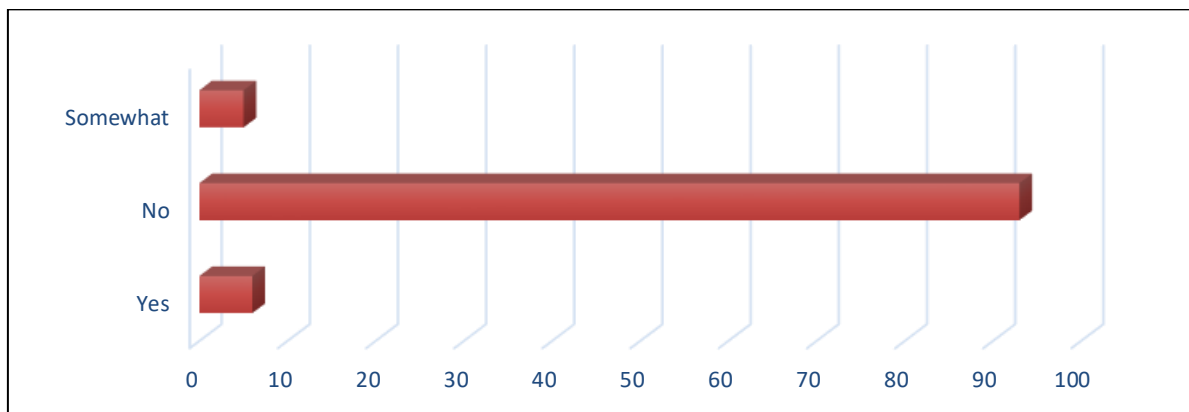
(Source: Table -3)

Table - 4 - Consumers Awareness on “Electric Cars Contributes to SDG Attainment”

S. No	Particulars	No. of Respondents (Out of 104)	Percentage (100%)
1.	Yes	6	5.77
2.	No	93	89.42
3.	Somewhat	5	4.81
Total		104	100%

(Source: Questionnaire & Google Form)

Chart - 4 - Consumers Awareness on “Electric Cars Contributes to SDG Attainment”



(Source: Table - 4)

Statistical Analysis and Interpretations

Mann-Whitney Test U Test

H0: Their exist no significant difference between Gender of the respondents and their Perception towards Electric Cars.

H1: Their exist significant difference between Gender of the respondents and their Perception towards Electric Cars.

Ranks

	Gender	N	Mean Rank	Sum of Ranks
GQ2/II Q5 Gender of the respondents & them Perception towards Electric Cars.	Female	83	42.37	3516.71
	Male	21	40.95	859.95
	Total	104		

Test Statistics^a

	GQ2/II Q5 Gender of the respondents & them Perception towards Electric Cars.
Mann-Whitney U	281.500
Wilcoxon W	3516.71
Z	-.136
Asymp. Sig. (2-tailed)	.0852

a. Grouping Variable: Gender

Interpretation: P value = 0.0852 which is above 0.05, Null Hypothesis is accepted. Thus, there exists no significant difference between Gender of the respondents and their perception about Electric Cars.

Findings of the Study:

1. Demographic Findings:

Most of the Consumers who took in the survey are Male

Majority of Consumers Age are between 30 – 40 Years.

Occupation of Most of consumers are Executives, Professionals and Businessmen.

2. 73.76% of Chennai Consumers are aware of Electric Cars.

3. Consumers prefer Electric Car because it is viewed as Status Symbol in Society.

4. Electric Car is preferred by Consumers not because Government is insisting,

To save environment,

To reduce noise Pollution but for Status Symbol.

5. Government Incentives & Subsidies are not one among Important reason for Purchase but, an added reason for purchase of Electric Car.

6. Purchase Price is the Major deciding Factor influencing consumers to choose a Particular Brand and Model of Electric Car.

7. Majority of Chennai Consumers have rated Tata Brand of Electric Car as most Preferred brand in Chennai.

8. Under Tata brand of Electric Car – Tata Tiago (Rs.7.99 Lakhs), Tata Punch (Rs.9.99 Lakhs) and Tata Nexon (Rs.12.49 Lakhs) are the most popular Models in Chennai.

9. Under Hyundai Creta Electric – Executive Model (17.99 Lakhs) is Most Popular.

10. Under MG – MG Motors – MG Windsor (Rs.10 Lakhs), MG Comet (Rs.4.99 Lakhs) are most Popular.

11. Findings on Perception towards Electric Cars:

Electric Cars are viewed by Chennai consumers as:

Luxury Product which is priced high,

Status Symbol

only Rich and Upper Middle-class consumers can only afford.

Mostly meant for Business People and Managers & Senior Executives in MNC.

Monthly Income in 6-digit No. can only afford to buy.

Awareness on SDG among consumers is found very less (Less than 5%)

89.42% of Consumers are not aware that, Electric Car helps to attain SDG.

Suggestions:

1. Subject on Sustainable Development Goals and Sustainable Transportation can be inserted in School & College Syllabus to increase its awareness among Students Community.

2. Electric Car Manufacturers should focus more on manufacture of Basic and Economy Model to attract Middle Class People.

3. Advertisements of Electric Car should also educate general public about its need, necessity, Environmental Benefits and essentiality.

4. Government should repeatedly advertise in Print and Media that Electric Cars are available in all price ranges, its Eco Benefits and about its Promotion Schemes.

CONCLUSION:

Electric Car though branded as Luxury and Premium product in the minds of consumers is now available in all price ranges to cater all class of people. But its awareness is found less among consumers. Enviro Consciousness, Social Consciousness and Responsible Citizenship among Consumers are found very less among Chennai Consumers as they perceive Electric Car not as Eco-Friendly product but trending & new product to the market..

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1. Bureau, T. H. (2025, March 2 (Sunday)). Overage Vehicles in Delhi will be denied fuel from March 31. The Hindu Newspaper.
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