

A STUDY ON BUYING BEHAVIOR OF ELECTRIC CARS IN THE FUTURE WITH SPECIAL REFERENCE TO COIMBATORE

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INTRODUCTION

Need for Electric Cars - an electric car (battery powered car) is a plug-in automobile that is propelled by one or more electric motors, using energy that is being stored in their rechargeable batteries. Increasing oil prices and the need to reduce greenhouse gases are the two major concerns that has resulted the scientists to move their invention towards electric powered vehicles, that results in zero emission and zero need of fossil fuels. Number of nations has started establishing tax credits, subsidies and other incentives in-order to promote the introduction and adoption of the electric vehicles. These offers often depend up on battery size, their travel range and the on-road price of the car. The maximum tax credit at present, allowed by the US Government is US\$7,500 per car. Compared with internal combustion or fossil fuel powered engine vehicles, electric cars are much quieter and have no exhaust gases resulting in lower emissions. Charging an electric car can be done using charging stations. These charging stations can be installed in both houses and public areas. The two bestselling electric cars, the Nissan Leaf and the Tesla Model S, have EPA-rated ranges reaching up to 151 mi (243 km) and 335 mi (539 km) respectively.

OBJECTIVES

- To study about the psychological behaviour of people in buying international electric cars.
- To find out the features which is interesting to the international electric car buyers (TESLA).
- To do SWOT analysis about the electric car market in general.

OBJECTIVE 1

To study about the psychological behaviour of people in buying electric cars.

Opinion on usage of fossil fuels as reason for global warming

Table depicts the opinion of respondents on usage of fossil fuels as reason for global warming. The opinions are classified as strongly agree, agree, neutral, disagree, strongly disagree.

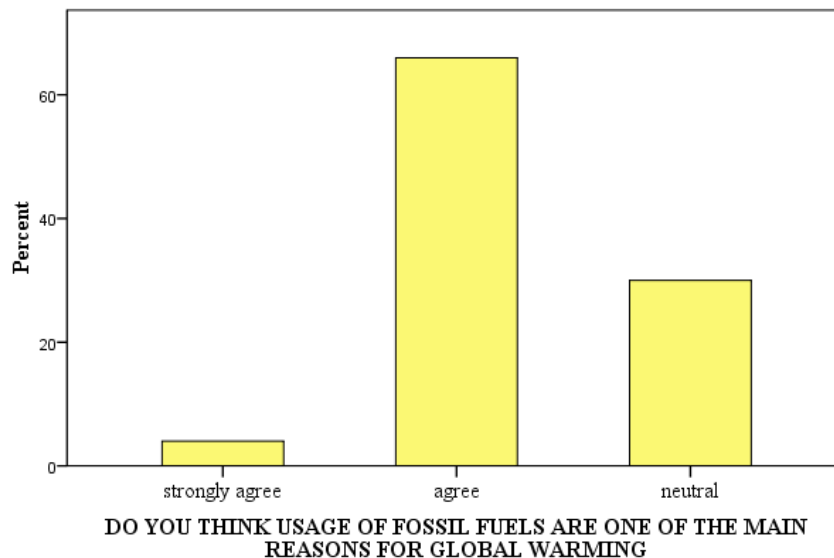
Table : Usage Of Fossil Fuels As Reasons For Global Warming

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	2	4.0	4.0	4.0
agree	33	66.0	66.0	70.0
neutral	15	30.0	30.0	100.0
Total	50	100.0	100.0	

From the above table it is defined that only 2(4%) respondents strongly agree with the statement, 33(66%) respondents agree with the statement and 15(30%) respondents are being neutral.

Chart depicts: Opinion on usage of fossil fuels as reason for global warming

DO YOU THINK USAGE OF FOSSIL FUELS ARE ONE OF THE MAIN REASONS FOR GLOBAL WARMING



OBJECTIVE 1

To study about the psychological behaviour of people in buying electric cars.

Opinion on preference of electric cars to fossil fuel cars

Table depicts the opinion of respondents on preference of electric cars to fossil fuel cars. The opinions are classified as strongly agree, agree, neutral, disagree, strongly disagree.

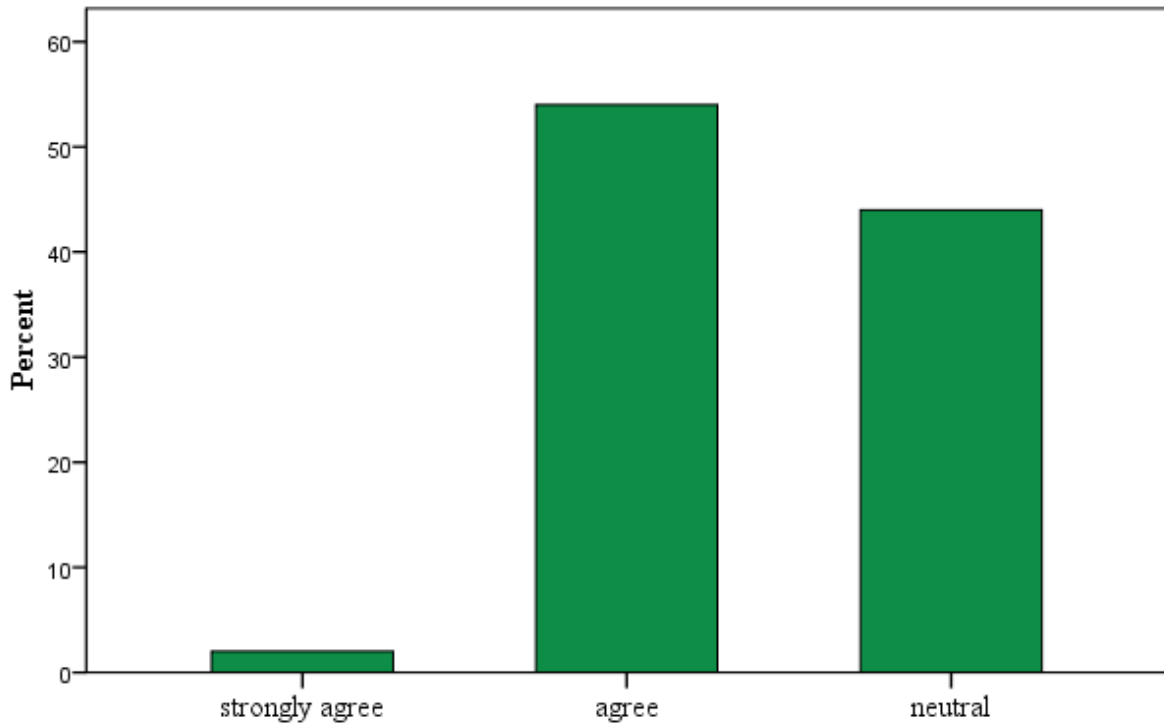
Table : Opinion on preference of electric cars to fossil fuel cars

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly agree	1	2.0	2.0	2.0
agree	27	54.0	54.0	56.0
neutral	22	44.0	44.0	100.0
Total	50	100.0	100.0	

From the above table it is defined that only 1(2%) respondents strongly agree with the statement, 27(54%) respondents agree with the statement and 22(44%) respondents are being neutral.

Chart depicts: preference of electric cars to fossil fuel cars

DO U PREFER ELECTRIC CARS TO FOSSIL FUEL CARS



DO U PREFER ELECTRIC CARS TO FOSSIL FUEL CARS

OBJECTIVE 1

To study about the psychological behaviour of people in buying electric cars.

Initiative Of Buying And Using Electric Cars Must Be Taken by

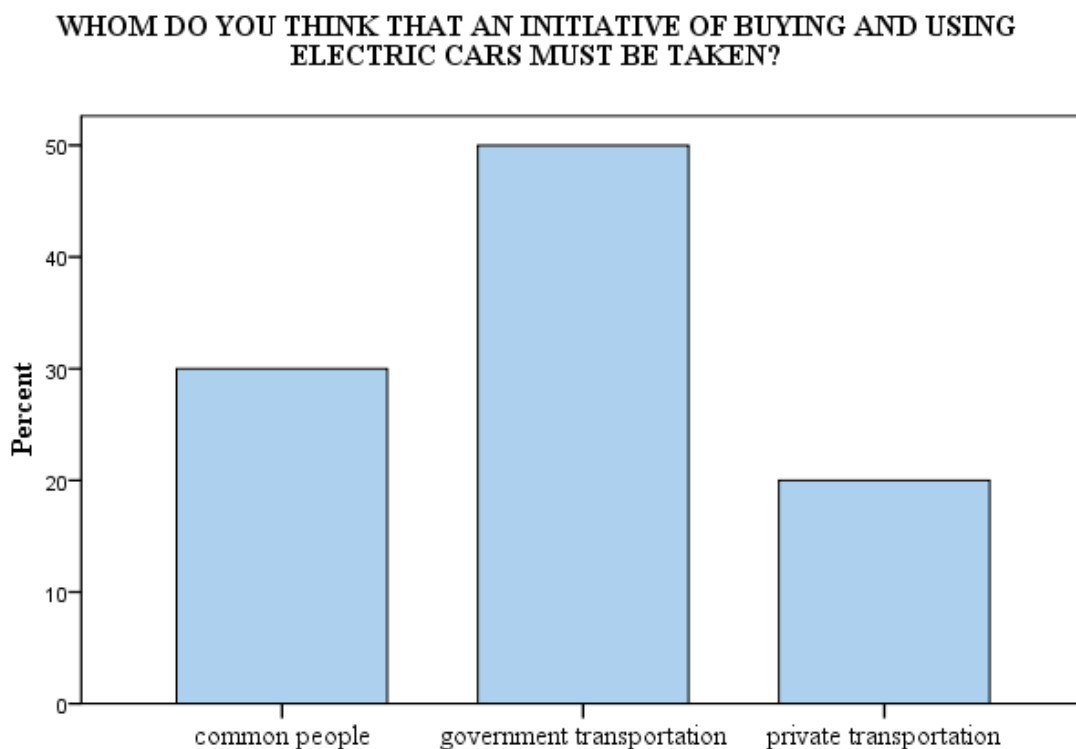
Table depicts the respondent’s opinion regarding who must take the initiative of buying electric cars. It is classified as common people, private and public transportation.

Table: Initiative Of Buying And Using Electric Cars Must Be Taken?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid common people	15	30.0	30.0	30.0
government transportation	25	50.0	50.0	80.0
private transportation	10	20.0	20.0	100.0
Total	50	100.0	100.0	

The above table shows that the majority of the respondents(50%) thinks that the initiative of buying electric cars must be taken by government transportation.

Chart depicts: Initiative Of Buying And Using Electric Cars Must Be Taken By



WHOM DO YOU THINK THAT AN INITIATIVE OF BUYING AND USING ELECTRIC CARS MUST BE TAKEN?

OBJECTIVE 1

To study about the psychological behaviour of people in buying electric cars.

Willingness To Buy The Electric Car

Table shows the willingness of the respondents to buy the electric car. It is categorized as willing, not willing and depending upon the situation.

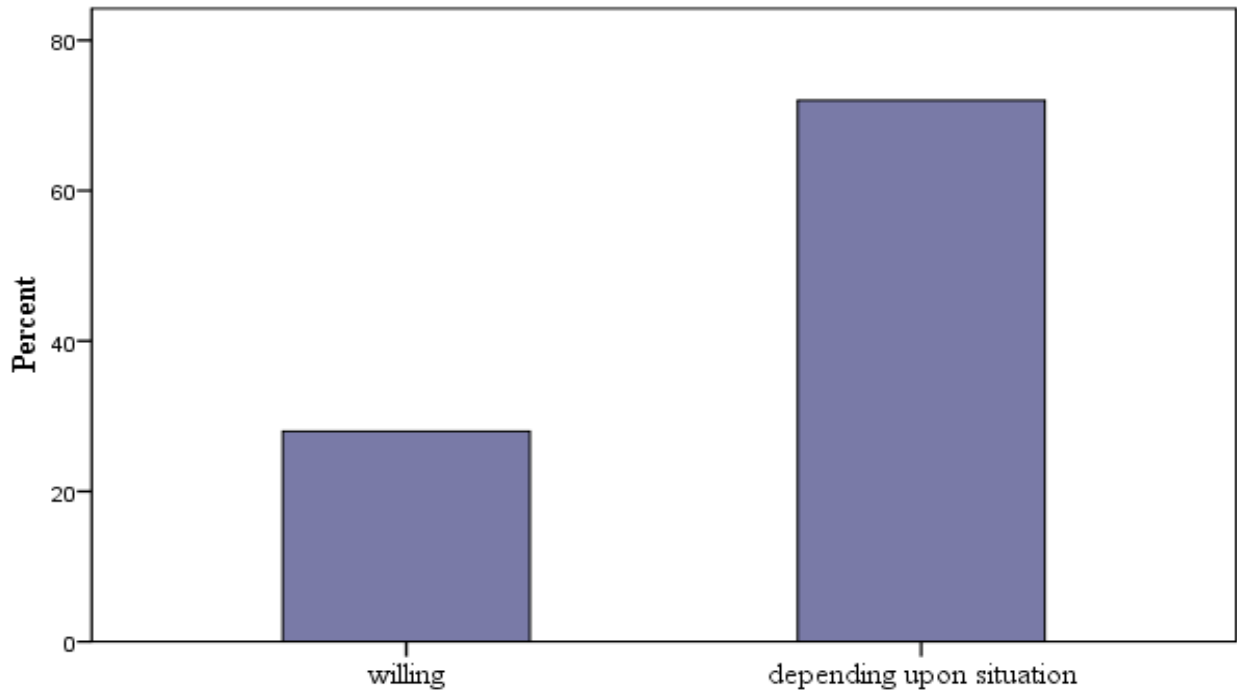
Table: State Your Willingness To Buy The Electric Car

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid willing	14	28.0	28.0	28.0
depending upon situation	36	72.0	72.0	100.0
Total	50	100.0	100.0	

The above table shows that majority of the respondents (72%) preferred to buy the electric car depending upon the situation.

Chart depicts: State Your Willingness To Buy The Electric Car

STATE YOUR WILLINGNESS TO BUY THE ELECTRIC CAR



STATE YOUR WILLINGNESS TO BUY THE ELECTRIC CAR

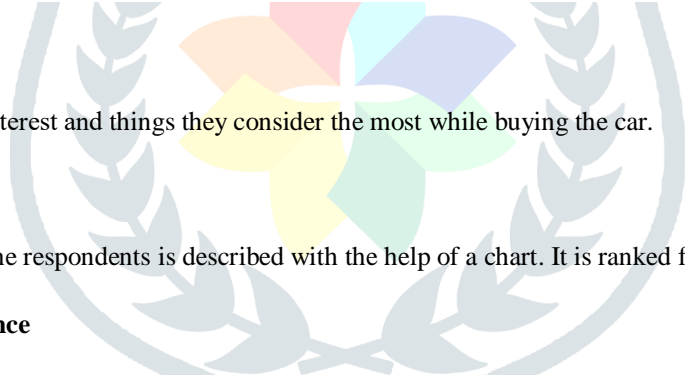
OBJECTIVE 2

To find out the people’s major interest and things they consider the most while buying the car.

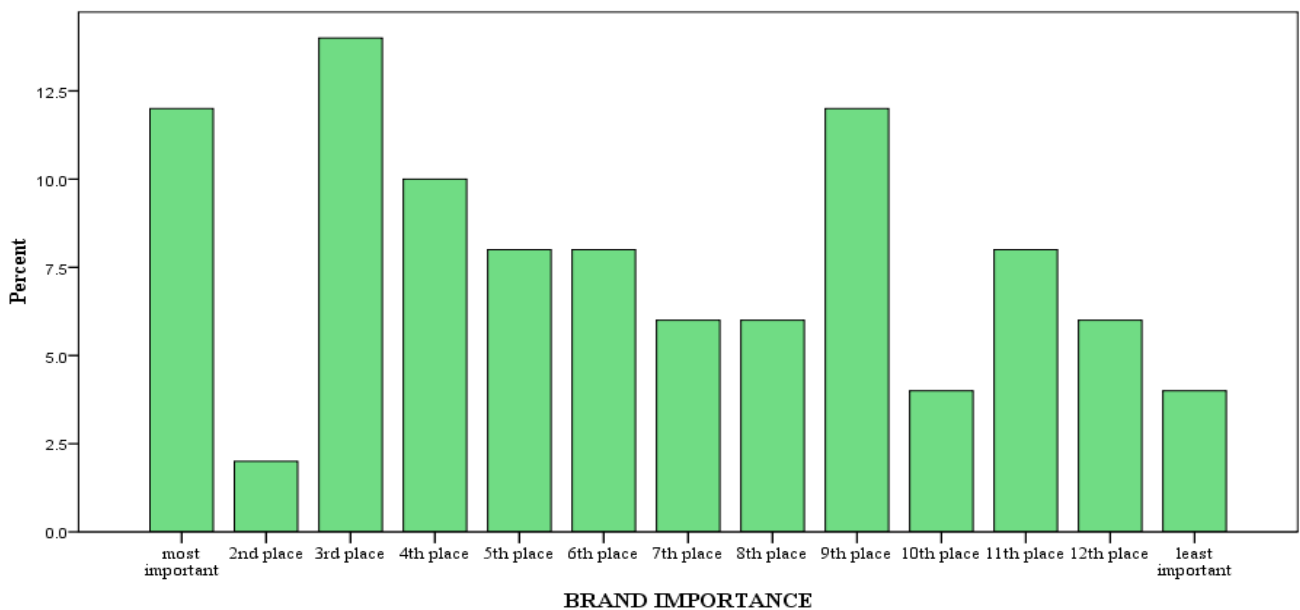
Brand importance

Importance of brand ranked by the respondents is described with the help of a chart. It is ranked from 1 to 13.

Chart depicts: Brand Importance



BRAND IMPORTANCE



The above chart shows that many of the respondents has preferred brand as 3rd place , 9th place and a few considered them as most important too.

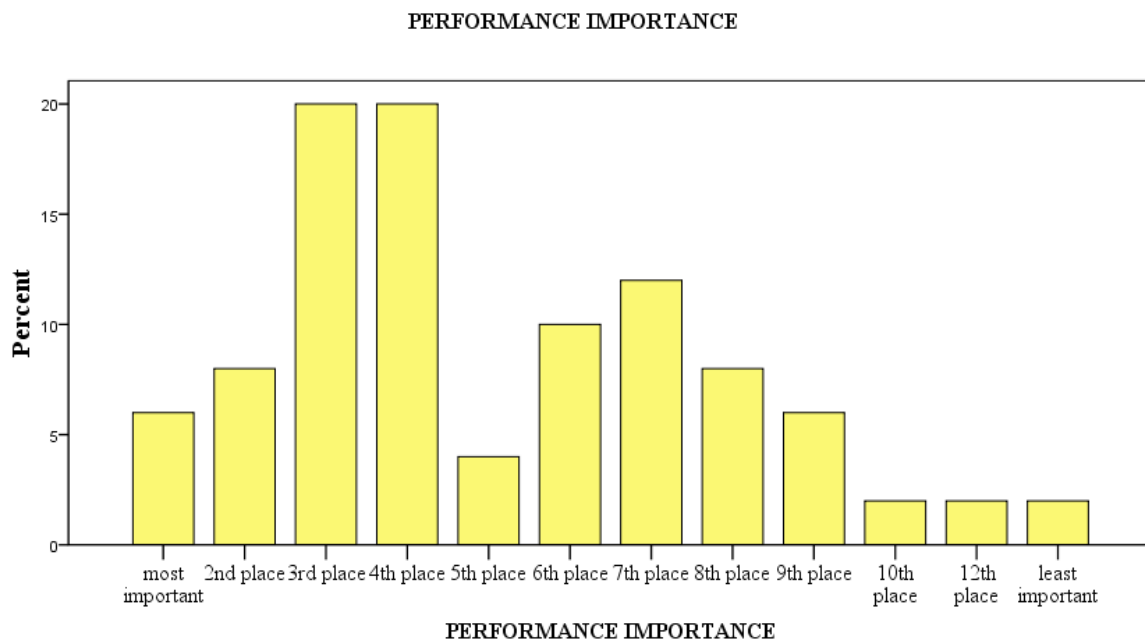
OBJECTIVE 2

To find out the people’s major interest and things they consider the most while buying the car.

Performance importance

The importance of performance ranked by the respondents is described with the help of a chart. It is ranked from 1 to 13.

Chart depicts: Performance Importance



The above chart shows that many of the respondents has ranked performance at 3rd and 4th place.

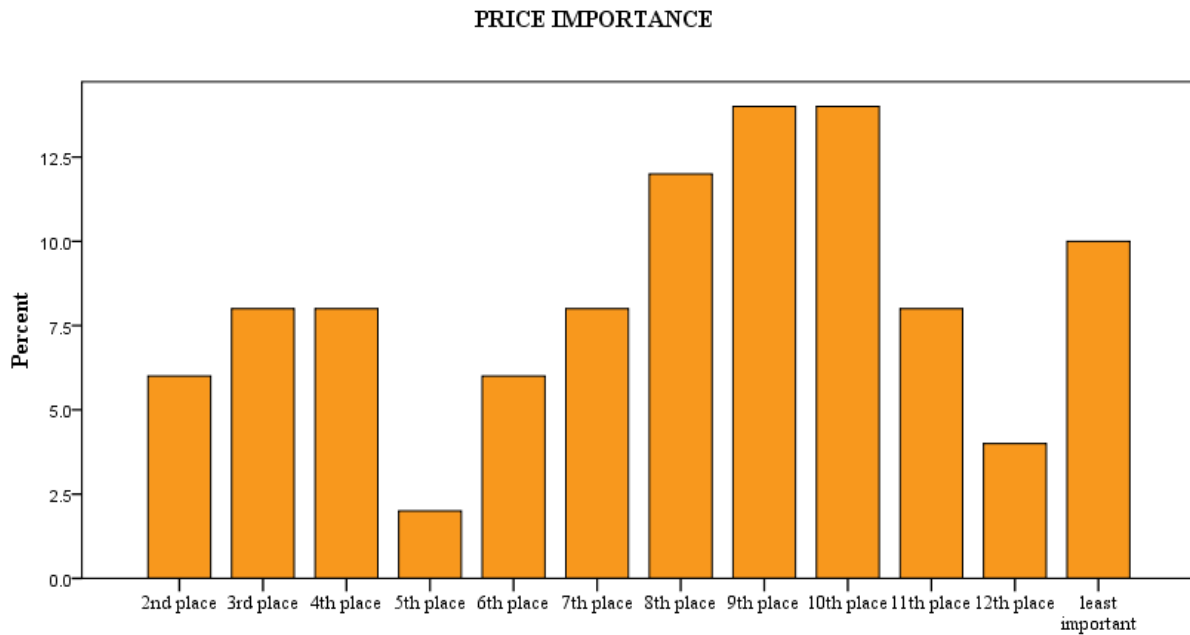
OBJECTIVE 2

To find out the people’s major interest and things they consider the most while buying the car.

Price importance

The importance of price ranked by the respondents is described with the help of a chart. It is ranked from 1 to 13.

Chart depicts: Price Importance



PRICE IMPORTANCE

The above chart describes that majority of the respondents ranked price at 9th and 10th place. None considered them as most important.

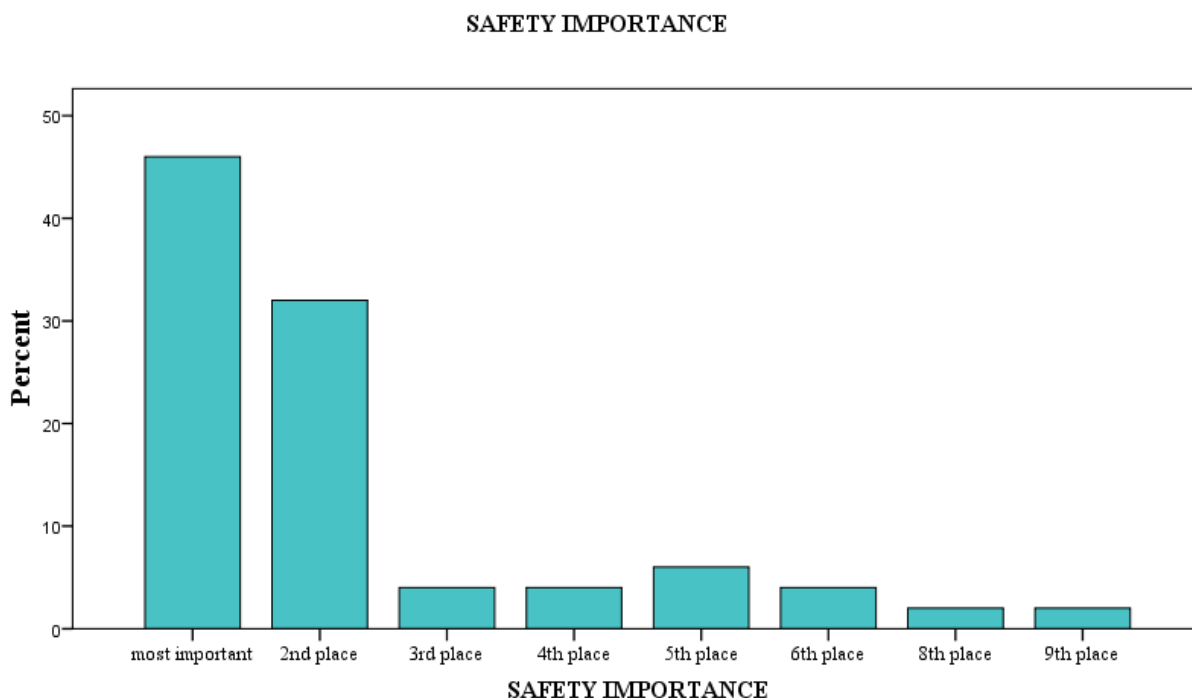
OBJECTIVE 2

To find out the people’s major interest and things they consider the most while buying the car.

Safety importance

The importance of safety ranked by the respondents is described with the help of a chart. It is ranked from 1 to 13.

Chart depicts: Safety Importance



SAFETY IMPORTANCE

The above chart shows that majority of the respondents considered safety at first place while purchasing the cars because many respondents have ranked them as most important.

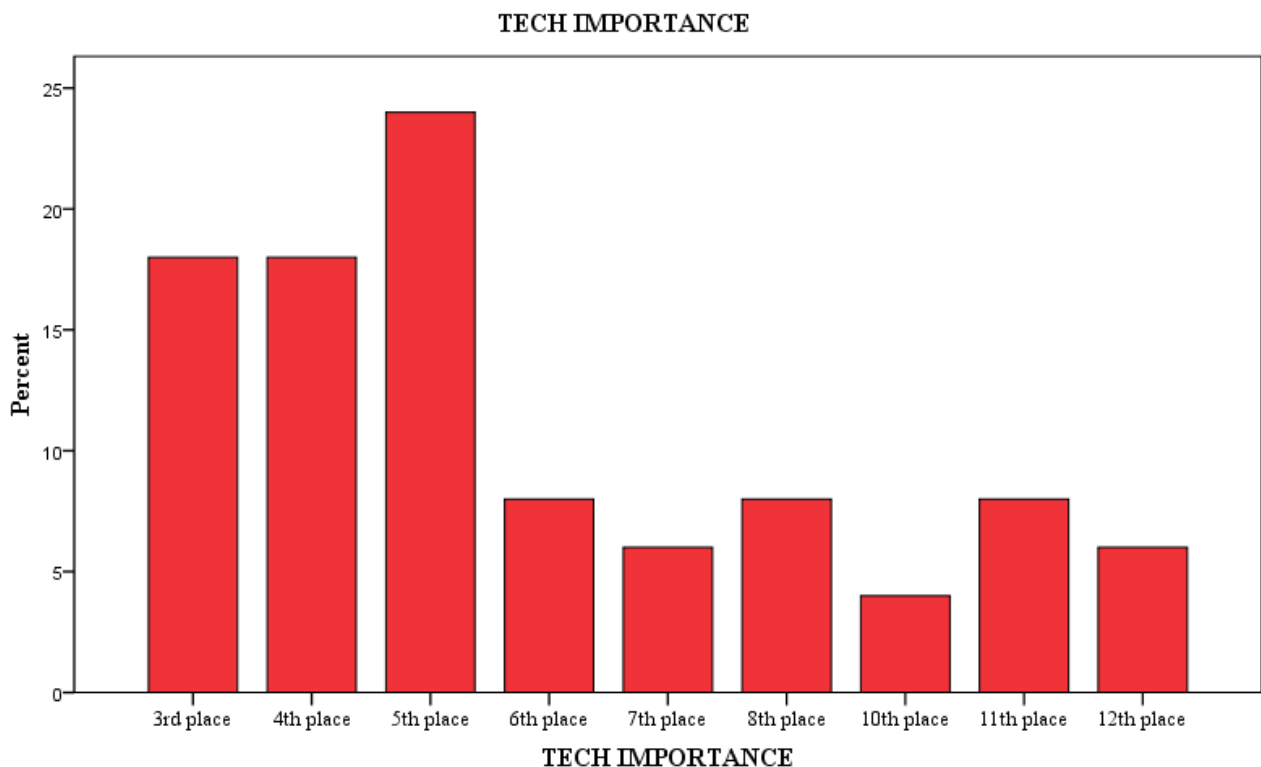
OBJECTIVE 2

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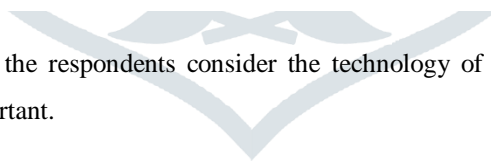
Tech importance

The importance of technology ranked by the respondents is described with the help of a chart. It is ranked from 1 to 13.

Chart depicts: Tech Importance



The above chart shows that majority of the respondents consider the technology of the car as 3rd or 4th important one .None considered them as most or the least important.



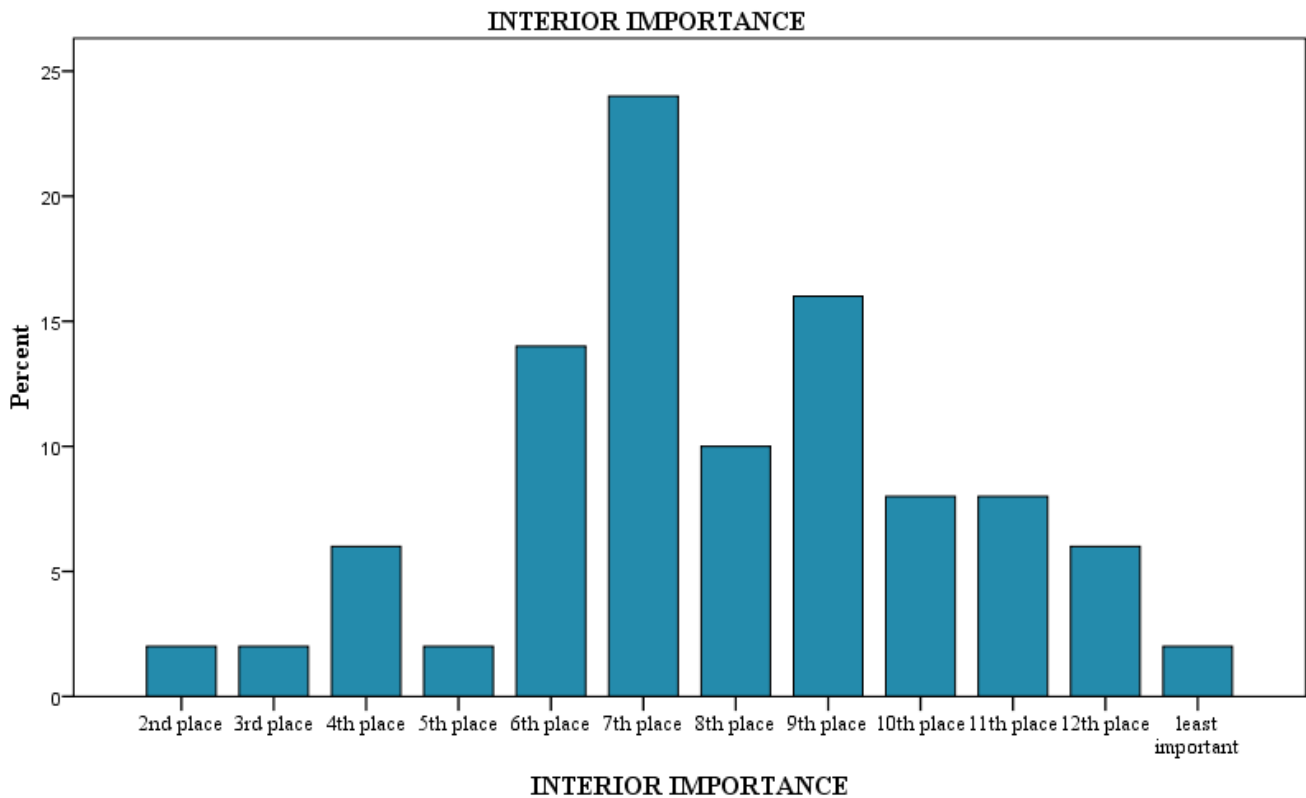
OBJECTIVE 2

To find out the people’s major interest and things they consider the most while buying the car.

Interior importance

The importance of interior ranked by the respondents is described with the help of a chart. It is ranked from 1 to 13.

Chart depicts: Interior Importance



The above chart shows that many of the respondents ranked interior at 7th place . So respondents consider that interior is also an important factor to be considered while purchasing car.

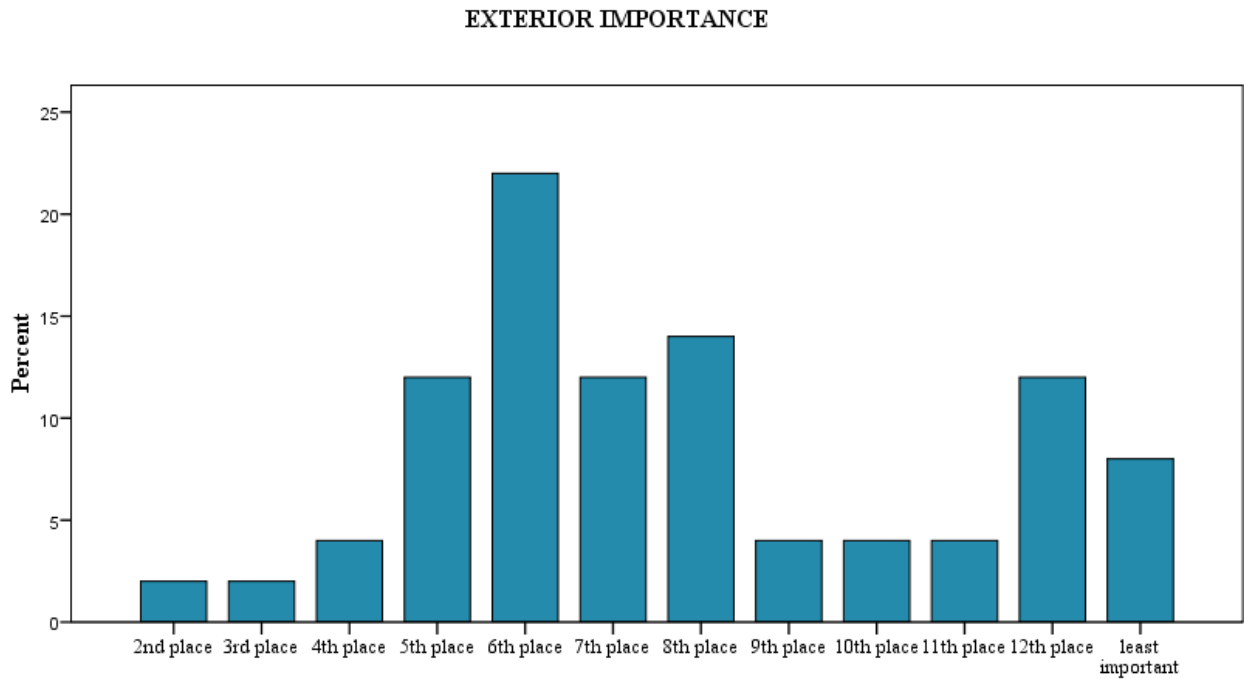
OBJECTIVE 2

To find out the people’s major interest and things they consider the most while buying the car.

Exterior importance

The importance of exterior ranked by the respondents is described with the help of a chart. It is ranked from 1 to 13.

Chart depicts: Exterior Importance



EXTERIOR IMPORTANCE

The above chart shows that many of the respondents has preferred exterior at 7th place. So respondents consider that interior is also an important factor to be considered while purchasing car.

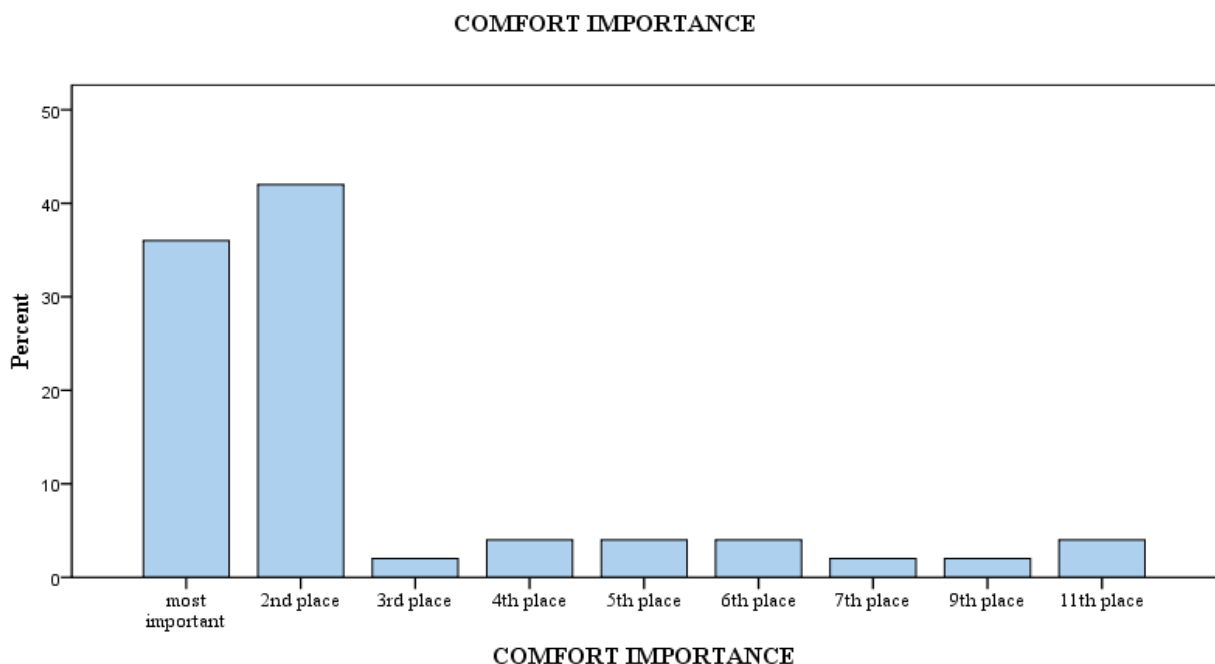
OBJECTIVE 2

To find out the people’s major interest and things they consider the most while buying the car.

Comfort importance

The importance of comfort ranked by the respondents is described with the help of a chart. It is ranked from 1 to 13.

Chart depicts: Comfort Importance



COMFORT IMPORTANCE

The above chart shows that majority of the respondents has ranked comfort as the most important factor to be considered while purchasing car.

CHAPTER 4

SWOT ANALYSIS

Strength

- The consumers are willing to import the electric cars because of the following reasons
- It causes less pollution and less noise which attracts the consumers who wanted to be environment friendly
- Since many of the consumers consider the safety of the car while purchasing them, the electric cars have higher safety. For ex: tesla has scored a perfect 5 star rating in safety which is not even scored by Volvo.
- Electric cars are managed to prove that their accelerating speed can be as good as fossil fuel cars.
- Now a days the electric cars are being produced with higher mileage.
- The maintenance of electric cars are less when compared to fossil fuel cars.
- Electric cars have managed to bring out auto pilot system which is better compared to fossil fuel cars.
- They also have good interior and exterior designs which attracts the customers.
- There is tax credits if we use electric cars compared to the fossil fuels cars.
- The driving cost is low compared to the fossil fuel cars.

Weakness

- The cost of the electric cars are higher compared to the fossil fuel cars.
- When the car runs out of battery at the middle of the road, recharging them is not easy as refuelling the fossil fuel cars.
- It is not easy to repair like fossil fuel cars only trained personnel can repair them.
- The replacement of electric cars are always higher.
- Auto pilot system is not effective on every road conditions for example in our country the lane management system is very poor thus using auto pilot mode is highly risky.
- Charging time is low when compared to refuelling of fossil fuels.
- Charging station availability is inconsistent.

Opportunities

- The government must create awareness about the electric cars and how the usage of electric cars can save the environment.
- The government can increase the rate of fossil fuel and the fossil fuel cars so that the people will get motivated to use the electric cars.
- The government can provide subsidies for the ownership of electric cars and lower the taxes for them.
- The electric batteries can be produced at a larger scale.

Threats

- Manufacturing the electric batteries is also polluting the environment.
- There is no proper method to handle the used batteries. one lithium ion battery has a potential to poison the whole water aquifer of Delhi.
- The possibilities of the electric batteries to catch fire are very high.
- The electricity needed to recharge all those electric cars will inevitably lead to more emissions since they come from coal fired generating plants that threw enormous quantities of carbon emissions into the atmosphere.

FINDINGS

- The majority 20(40%) of the respondents are between the age group of 41-50 years.
- The majority 29(58%) of the respondents are male.
- The majority 27(54%) of the respondents belong to 3-4 members family size.
- The majority 16(32%) of the respondents belong to above 2,50,000 family monthly income.
- The majority 38(76%) of the respondents owns 1 car.
- The majority 23(46%) of the respondents prefer monthly long trips.
- The majority 33(66%) of the respondents agree that usage of fossil fuels are one of the main reasons for global warming.
- The majority 27(54%) of the respondents prefer electric cars to fossil fuel cars.
- The majority 25(50%) of the respondents think that government transportation department must take an initiative of buying and using electric cars.
- The majority 36(72%) of the respondents are willing to buy the electric car depending upon the situation.
- The majority 35(50%) of the respondents have neutral opinion on buying the electric car based on popularity.
- The majority 20(40%) of the respondents strongly agree that they will buy the electric car only if the quality is good.
- The majority 19(38%) of the respondents agreed that they will recommend others to buy the electric cars.
- The majority of the respondents first consider the safety and comfort of the car while purchasing them.

SUGGESTIONS

- The government must create awareness about the electric cars and how the usage of electric cars can save the environment.
- The government can increase the rate of fossil fuel and the fossil fuel cars so that the people will get motivated to use the electric cars.
- The government can provide subsidies for the ownership of electric cars and lower the taxes for them.
- The electric batteries can be produced at a larger scale.
- The people must move towards electric cars to reduce the emission of fossil fuels which is eventually leading to environmental pollution.

CONCLUSION

The invention of wheels made humans think about transportation and time management. Automobiles are an essential part of human life and petrol and diesel has become an inseparable part of everyone's life. The top metropolitan cities of our country such as Delhi, Mumbai, and Chennai are getting highly polluted. We cannot stop using automobiles in our daily life but we can reduce the usage of fossil fuels in our daily life. So the electric cars must be used. It cannot be said that the electric cars stop polluting the environment but it can reduce the pollution of environment.

