

**A**

**INDUSTRY ANALYSIS & DESK RESEARCH PROJECT**

**ENTITLED**

**“A STUDY ON CONSUMER PERCEPTION TOWARDS  
ELECTRIC VEHICLES AMONG THE CITIZENS OF  
NASHIK CITY”**

**SUBMITTED BY**

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**DEPARTMENT OF MBA**

**NASHIK DISTRICT MARATHA VIDYA PRASARAK SAMAJ'S  
KARMAVEER ADV. BABURAO GANPATRAO THAKARE COLLEGE OF  
ENGINEERING, NASHIK-013**

**FOR ACADEMIC YEAR**

**2022-2023**



DEPARTMENT OF MBA

## CERTIFICATE

This is to certify that Mr. /Miss Maseerah Shaikh, Ikra Shaikh, Sachin Nikam, Apurva Pawar, Ravindra Chavan, Abhishek Shermale has successfully completed the Industry Analysis-Desk Research Project entitled

**“A STUDY ON CONSUMER PERCEPTION TOWARDS  
ELECTIC VEHICLES AMONG THE CITIZENS OF  
NASHIK CITY”**

Under the guidance of

**DR. S.V. BACHHAV**

In the partial fulfillment of the requirement of **MBA Course as expected by Savitribai Phule Pune University** during the academic year 2022-2023.

**Dr. S.V. Bachhav**

Project Guide

**Dr. D.T. Khairnar**

Head of Department

**Dr. S.R. Devane**

Principal

# ACKNOWLEDGMENT

We would like to express our gratitude and appreciation to all those who have guided us throughout the project.

It is proud privilege to express our sincere gratitude to **Dr. S. N. Devane Sir** (Principal of KBT College) and to **Dr. D.T. Khairnar Sir** (Head of Department) for his encouragement and words of wisdom during project work.

We are thankful to our project guide **Dr. S.V. Bachhav Sir** for his valuable guidance, kind advice and encouragement during the project work.

We would like to take this opportunity to express honor, respect, gratitude, and genuine regards to all the teaching staff of the department for their constant encouragement and guidance required for the project.

Date:

Place: Nasik

## **STUDENT DECLARATION**

We the students of MBA department of MVPS's Karmaveer ADV. Baburao Ganpatrao Thakare College of Engineering, Nasik .Hereby declare that project entitled, "A study on consumers perception towards Electric vehicles among the citizens of Nasik city " was carried out by us as partial fulfillment of Master of Business Administration (MBA) course under the Savitribai Phule Pune University norms.

Date:

Place: Nasik

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**CHAPTER NO 1**  
**INTRODUCTION**

## 1.1 INTRODUCTION TO THE TOPIC

The growth of air pollution in Indian urban areas was a cause for concern Manufacturers. There are more than 25 major Indian cities among the 100 most polluted urban areas in the country World-Nation. The cause for the production of air pollution in urban areas is associated with an array of Sources but the division of transport makes a crucial commitment. Transport discharges are critical division is minimal. The antagonistic influence of air quality on human health and the economy is well known and, in this sense, producers are dreaming about reducing the impact on earth on a couple of options. Electric cars are seen as a potential choice for transportation, what is in addition, a few national governments have successfully revised innovation development plans. Indigenous governments are swift to advance electric vehicles as a green alternative for portability, moreover find it a realistic solution to the elimination of air emissions in urban areas. There are a few foreign examples of how to tackle challenges and best practices.

China for example, bigly took hybrid cars for cycling and commuting. Metropolitan areas in the UK, such as London are providing rewards. For example, for the procurement of new electric cars, except blocking charges and leave fees for electric cars in certain jurisdictions free or reduced. In India, electric 3-wheelers have been relatively popular, but still very little distribution of electrical power. Vehicles existed between two wheelers, four wheelers and an armada for urban transport. Techno-funding anyway, tests show that electric bikes can be financially feasible by 2020 and by 2030 electric four wheelers will be a prominent option for innovation, if government offers incentive charging forces and underpinnings are available. The strong atmospheric approach to propel the reason electrical machines. The administration is excited about the advent of electric vehicles. Minister of defense power it has also set an ambitious goal of being 100% electric by 2030. Alternative programs, in particular, the Minister of Road Transport and Highways made a powerful proclamation to the society of Indians Automobile Manufactures (SIAM) annual custom that has terrified the car industry. Anyway, definition of strategies would require contributions to terms of dimension of help required, suggestions for spending plans of government, approach instruments required and utilizing the private part.

According to one of the study 75% of carbon monoxide emissions come from automobiles and in urban areas 50 to 80%. Indians are finding hard to breathe in metropolitan cities. Recently Delhi people suffered a lot because of smog. People could not breathe even. Schools were declared holiday. Lot if vehicles collided each other due to invisibility. People stewarded moving around with masks. Delhi Government restricted vehicles from entering the city. This incidence shows that even the CNG is not a solution for pollution. Knowing that automobiles are the root cause for major pollution we must find a solution, why vehicles lead to pollution? It's mainly when fuel burns in engines produces lot of smoke especially diesel vehicles. This smoke contains carbon dioxide (co2) and nitrogen (N2). The government had tried to control on this emission by

making pollution free certificate compulsory in all vehicles. Later, making Euro IV series engines compulsory. The above all experience compelled the Government to do something in this regard. Now government is thinking that electric vehicle (EV) is the best solution for pollution. Electric vehicle does not lead to pollution at all. So in a country if there is a 100% electric vehicle 50 to 75% of pollution is reduced. It would be great achievement. Hence government is slowly encouraging automobile industries to produce electric vehicles. Also giving incentives and subsidies for electric vehicles. The present situation in India shows it is high time to go for electric vehicles. In international market Dollar value is going up, at the same time petrol price is shooting like a rocket. Common man with meager income who has small vehicle are finding it very difficult to cope up. People are addicted to travel by own vehicle especially in cities now are not in a position to afford for petrol or diesel. Sometime ago people bought diesel vehicles when diesel price was considerably low. This has led to further deterioration of environment. But now the price has become almost equal.

Electric vehicles are the vehicles which gets power from rechargeable batteries installed inside the vehicle instead of any fuel. These batteries are not only used to power the car engine but also for the functioning of lights and wipers. Electric cars have more batteries than normal gasoline car. The batteries are same as gasoline car but the difference is more batteries are used in it. The need for electric vehicles in today's world is clear.

However, if we weigh the merits and demerits on a weighing scale perhaps merits will weigh more, means to say electric vehicles are good compared to other vehicles. Understanding the uses of electric vehicle is decided to study the perception of electric vehicles and their needs. Once the need and perception of electric vehicles are studied, it will help the government to decide to introduce policies regarding whether electric vehicle's to be promoted or not. Because if people are not aware and not ready to buy electric vehicles, government cannot promote. Then other alternative has to think. Knowing all these advantages and disadvantages we must know whether the people of India are willing to buy Electrical vehicle (further it will be stated EV in the report). And whether there is any need for such vehicle need to Indian road condition and traffic problem. Badly there is a need for a detailed study in this regard. Unfortunately, no much study is being conducted as far as Indian society is concerned.



## **1.2 RESEARCH OBJECTIVES**

1. To study and understand the importance of electric vehicles.
2. To analyze the awareness of electric vehicles among citizen of Nasik city.
3. To understand the consumer perception towards electric vehicles.
4. To spread awareness about e-vehicles.
5. To research the factors driving customers to buy electric vehicles.

## **1.3 SIGNIFICANCE OF THE STUDY**

1. To find consumer perception in electric vehicles
2. To determine the factors for selecting electric vehicles.
3. To compare the usage of fossil fuel vehicles into electric vehicles.
4. To reduce pollution with the help of electric vehicles.

## **1.4 SCOPE OF THE STUDY**

This study has focused on both primary and secondary data of electric vehicles in Nasik. Though the research found a potential scope of electric vehicles in Nasik, still there is a scope for in- depth study with greater number of samples and more factors.

**CHAPTER NO 2**  
**INDUSTRY PROFILE**

## **2.1 INTRODUCTION TO AUTOMOBILE INDUSTRY**

Automotive industry, are all those companies and activities involved in the manufacture of motor vehicles, including most components, such as engines and bodies, but excluding tires, batteries, and fuel. The industry's principal products are passenger automobiles and light trucks, including pickups, vans, and sport utility vehicles. Commercial vehicles (i.e., delivery trucks and large transport trucks, often called semis), though important to the industry, are secondary. The design of modern automotive vehicles is discussed in the articles automobile, truck, bus, and motorcycle; automotive engines are described in gasoline engine and diesel engine. The development of the automobile is covered in transportation, history of: The rise of the automobile.

### **2.1.1. HISTORY**

The automotive industry began in the 1860s with hundreds of manufacturers that pioneered the horseless carriage. For many decades, the United States led the world in total automobile production. In 1929, before the Great Depression, the world had 32,028,500 automobiles in use, and the U.S. automobile industry produced over 90% of them. At that time, the U.S. had one car per 4.87 persons. After 1945, the U.S. produced about 75 percent of world's auto production. In 1980, the U.S. was overtaken by Japan and then became world leader again in 1994. In 2006, Japan narrowly passed the U.S. in production and held this rank until 2009, when China took the top spot with 13.8 million units. With 19.3 million units manufactured in 2012, China almost doubled the U.S. production of 10.3 million units, while Japan was in third place with 9.9 million units. From 1970 (140 models) over 1998 (260 models) to 2012 (684 models), the number of automobile models in the U.S. has grown exponentially.

Early car manufacturing involved manual assembly by a human worker. The process evolved from engineers working on a stationary car, to a conveyor belt system where the car passed through multiple stations of more specialized engineers. Starting in the 1960s, robotic equipment was introduced to the process, and today most cars are produced largely with automated machinery.

### **2.1.2. ECONOMY**

In 2007, there were about 806 million cars and light trucks on the road, consuming over 980 billion liters (980,000,000 m<sup>3</sup>) of gasoline and diesel fuel yearly. The automobile is a primary mode of transportation for many developed economies. The Detroit branch of Boston Consulting Group predicted that, by 2014, one-third of world demand would be in the four BRIC markets (Brazil, Russia, India and China). Meanwhile, in the developed countries, the automotive industry has slowed. It is also expected that this trend will continue, especially as the younger generations of people (in highly urbanized countries) no longer want to own a car anymore, and prefer other modes of transport. Other potentially powerful automotive markets are Iran and Indonesia. Emerging automobile markets already buy more cars than established markets.

According to a J.D. Power study, emerging markets accounted for 51 percent of the global light-vehicle sales in 2010. The study, performed in 2010 expected this trend to accelerate. However, more recent reports (2012) confirmed the opposite; namely that the automotive industry was slowing down even in BRIC countries. In the United States, vehicle sales peaked in 2000, at 17.8 million units.

In July 2021, the European Commission released its "Fit for 55" legislation package, which contains important guidelines for the future of the automotive industry; all new cars on the European market must be zero-emission vehicles from 2035.

The governments of 24 developed countries and a group of major car manufacturers including GM, Ford, Volvo, BYD Auto, Jaguar Land Rover and Mercedes-Benz committed to "work towards all sales of new cars and vans being zero emission globally by 2040, and by no later than 2035 in leading markets". Major car manufacturing nations like the US, Germany, China, Japan and South Korea, as well as Volkswagen, Toyota, Peugeot, Honda, Nissan and Hyundai, did not pledge.

### **2.1.3. ENVIRONMENTAL IMPACTS**

The global automotive industry is a major consumer of water. Some estimates surpass 180,000 L (39,000 imp gal) of water per car manufactured, depending on whether Type production is included. Production processes that use a significant volume of water include surface treatment, painting, coating, washing, cooling, air-conditioning and boilers, not counting component manufacturing. Pain shop operations consume especially large amounts of water, because equipment running on water-based products must also be cleaned with water

In 2022, Tesla's Gig factory Berlin-Brandenburg ran into legal challenges due to droughts and falling groundwater levels in the region. Brandenburg's Economy Minister Joerg Steinbach said that while water supply was sufficient during the first stage, more would be needed once Tesla expands the site. The factory would nearly double the water consumption in the Greenhead area, with 1.4 million cubic meters being contracted from local authorities per year enough for a city of around 40,000 people. Steinbach said that the authorities would like to drill for more water there and outsource any additional supply if necessary.

**CHAPTER NO 3**  
**REVIEW OF LITERATURE**

## **RESEARCH PAPERS**

### **A Study on the Adoption of Electric Vehicles in India: The Mediating Role of Attitude,**

Article by, Anil Khurana, V. V. Ravi Kumar, Manish Sidhuria

#### **ABSTRACT**

Pollution of the environment is currently a global concern. Toxic emission from internal combustion engines is one of the primary air pollutants. In order to mitigate the effects of fossil fuel emission and address environmental concerns (ECs), electric vehicles (EVs) are being promoted aggressively all over the world. Various governments are encouraging people to switch to EVs by incentivizing the transition. Previous studies indicate that the high cost of the electric car, non-availability of charging infrastructure, time and range anxiety act as impediments to consumer adoption. The Government of India has given a call for ‘only Electric Vehicles’ on Road by 2030. This article is contemporary and examines the different factors that affect a consumer’s adoption of an EV. The respondents of the study are existing car owners in India. The data were analyzed using Structured Equation Modeling (SEM). Attitude (ATT) emerged as a strong mediator, influencing the adoption of electric cars.

### **Demonstrating Plug-in Electric Vehicles Smart Charging and Storage Supporting the Grid,**

Article by Smart Grid Energy Research Center (SMERC)

Primary Author: Rajit Gadh

#### **ABSTRACT**

This report presents the development and deployment of an electric vehicle (EV) charging system in Santa Monica, California, consisting of smart charging, vehicle-to-grid, vehicle-to-building, demand response and power quality sustainable capabilities to achieve grid resiliency and economic benefit to EV fleet owners. The research team from the University of California, Los Angeles (UCLA) Smart Grid Energy Research Center used its wireless network communication system and bi-directional EV charge infrastructure technologies to demonstrate the grid needs such as peak shaving, load leveling, and renewable source smoothing. The team developed unique algorithms, software, and hardware, and integrated a battery energy storage system EV. As a project result, the UCLA Smart Grid Energy Research Center validated the viability of bidirectional electric vehicle infrastructure, air quality enhancement, and financial benefits from the system.

## **Electric Vehicles for India: Overview and Challenges,**

Article by, Mr. A. Rakesh Kumar, Dr. Sanjeevikumar Padmanaban

### **ABSTRACT**

The global pollution is on rise and every effort made, being to reduce the CO<sub>2</sub> emissions and save the planet. One such effort is the introduction of Electric Vehicles (EV). The transport sector is one of the biggest emitter of CO<sub>2</sub> and hence it is very important to convert the sector to a green sector. Indian government has come up with ambitious plans of introducing the EVs to Indian market and keep in pace with the development of EVs globally. The National Electric Mobility Mission Plan 2020 (NEMMP 2020) has come with a detailed report on the EVs.

## **Projected transition to electric vehicles in India and its impact on stakeholders**

Article by, B.K. Chaturvedi, Atri Nautiyal, T.C.Kandpal, Mohammed Yaqoot

### **ABSTRACT**

As electric vehicles share strong linkage with multiple sustainable development goals, India is aiming to achieve 30% electric vehicle (EV) share by year 2030 under the EV30@30 Campaign. The projected transition to EVs would: a) reduce consumption of petroleum fuels currently used for road transportation; b) shift the consumer demand from internal combustion engine based automobiles to EVs; and c) require additional electricity and network of charging infrastructure for energizing EVs. These changes are going to affect multiple stakeholders in different ways. This paper is a modest attempt to capture the projected transition to EVs in India and its impact on the stakeholders. Impact assessment of stakeholders under various scenarios highlight that the transition is going to be challenging for central and state governments, petroleum sector and automobile industry whereas for electricity sector, it is expected to open new investment and business opportunities. For smooth transition to EVs, this study proposes synergy between stakeholders, revamping of automobile industry and introduction of green/pollution taxes on additional products and services.

## **SUSTAINABILITY OF ELECTRIC VEHICLES: A short study of the Indian Electric Vehicles Market**

Article by, Anish Singla and Radhika Bansal

### **ABSTRACT**

There have been global initiatives to reduce global warming by two degrees Celsius by 2050. Switching to electric passenger vehicles, which generate no tailpipe emissions, is one of the most promising efforts. However, if the electricity used to power these vehicles is derived from fossil fuels, the expected outcome may not be realized. Furthermore, there bound impact is unavoidable, which may exacerbate the condition. As a result, in this study, we attempt to compute and compare the carbon-dioxide emissions of a four-wheeler EV and a normal combustion vehicle, assuming that the vehicles differ only in how they run. We also attempt to depict the rebound impact by gathering data on the VMT of electric and combustion 2-wheelers operating in India. Furthermore, we address the problems and potential solutions that EVs must overcome to be acknowledged as sustainable.

## **Electrical Motors for Electric Vehicle : A Comparative Study**

Article by, Pooja Naresh Bhatt, Hemant Mehar, Manish Sahajwani

### **ABSTRACT**

An Electric Vehicle is a vehicle controlled by an electric motor and is run utilizing the power put away in the batteries. Electric Vehicle was fabricated soon after the first DC power motor was introduced and consequently has longer history than a great many people figure it out. Pertaining to the growing innovation in Electric Vehicle system, it has turned out to be critical to get a far reaching comprehension of the criteria connected in determination of electric motors. It is observed that the use of electric motor has been varied from manufacture to manufacture. An expanding biological mindfulness and the lack of non-renewable energy source assets are solid motivations to grow progressively effective vehicles, with lower fuel utilization however without lessening driving solace indicate references by Thanh Anh Huynh et Al, 2018. Hence, various types of electric motors are currently utilized depending upon the power requirement. In this paper, authors provide a comparison of the most popular classes of electric motors being used over the period of time in context with the efficiency, power density, reliability, and size.



**CHAPTER NO 4**  
**RESEARCH METHODOLOGY**

## 4.1 RESEARCH METHODOLOGY

Research is referred as careful consideration of study regarding a particular concern or problem using scientific methods. Research begins by asking questions and choosing an appropriate method to investigate the problem.

Research methodology is the specific procedures or technique used to identify, select, process, and analyze information about a topic. Research methodology systematically solves the research problem. It involves gathering data, use of statistical technique, interpretation and drawing conclusion about research data. The purpose of this section is to describe the methodology carried out to complete the work. The effectiveness of any research work depends upon the correctness and effectiveness of the research methodology.

The purpose of this study is to explore the consumer's perception toward electric vehicle in Nasik city.

A **quantitative study** with the help of **descriptive survey method** will be used in collecting the data from the consumers in Nasik.

### DEFINITION

**According to American sociologist Earl Robert Babbie,**

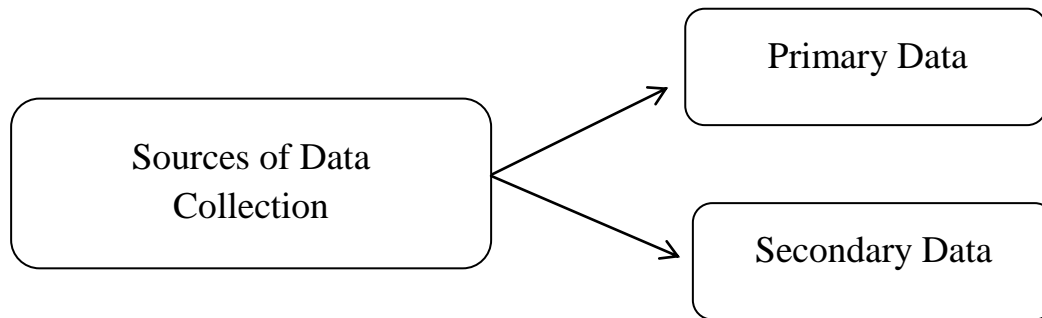
“It is a systematic inquiry to describe, explain, predict, and control the observed phenomenon. It involves inductive and deductive methods.”

**According to Webster's Dictionary,**

“It is a careful or critical inquiry or examination in seeking facts or principles; diligent investigation in order to ascertaining something.”

## 4.2 SOURCES OF DATA COLLECTION

Data collection is one of the most important stages in conducting a research, the data can be collected in two ways that is,



### PRIMARY DATA

Primary data is the data that is collected directly from the main source, where the data originally originates from and are regarded as the best kind of data in research. The method used to gather the primary data is:

1. Questionnaire methods.
2. Interview

### SECONDARY DATA

Secondary data means the data that are already available i.e., collected and analyzed by someone else. The method used to gather the secondary data is:

1. Internet and websites
2. Newspaper
3. Magazines
4. Research Papers & projects
5. Books
6. Journals

### **4.3 RESEARCH FRAMEWORK**

RESEARCH METHODOLOGY	Qualitative and Quantitative
SAMPLING TECHNIQUE	Simple Random Sampling
SAMPLE SIZE	50 Citizens of Nasik City
PRIMARY DATA COLLECTION TOOL	Structured Questionnaire
SECONDARY DATA COLLECTION TOOLS	Websites, Company Reports, Research Paper, Journals, etc.

**CHAPTER NO 5**  
**DATA ANALYSIS & INTERPRETATION**

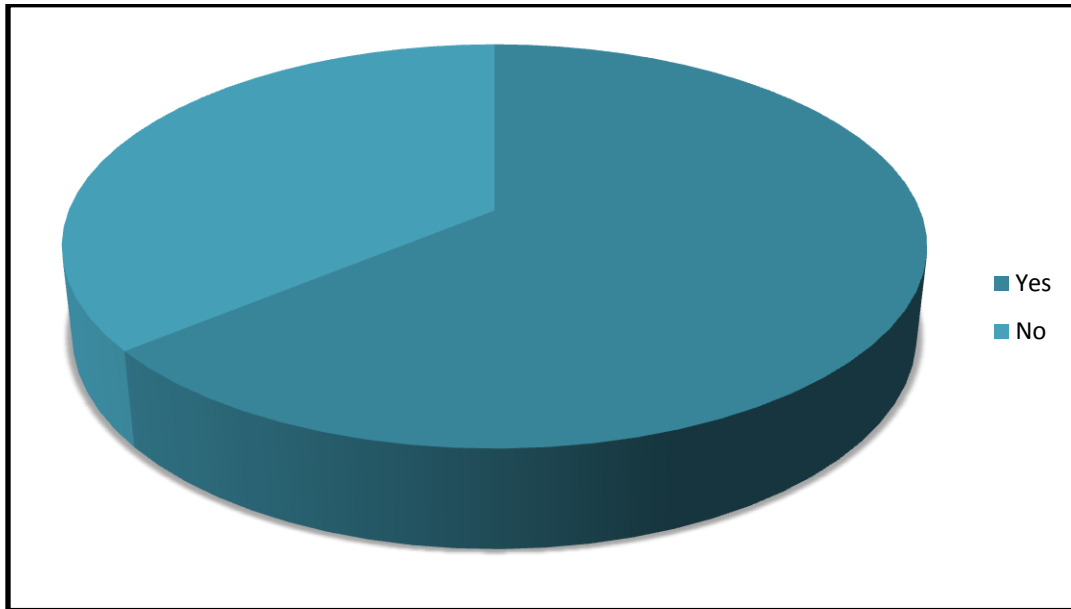
# DATA ANALYSIS AND INTERPRETATION

## 1. Are you aware of the importance of using electric vehicles?

Table No: 1

OPTIONS	NO OF RESPONES	PERCENTAGE
Yes	32	64%
No	18	36%
Total	50	100%

Graph No: 1



### Interpretation

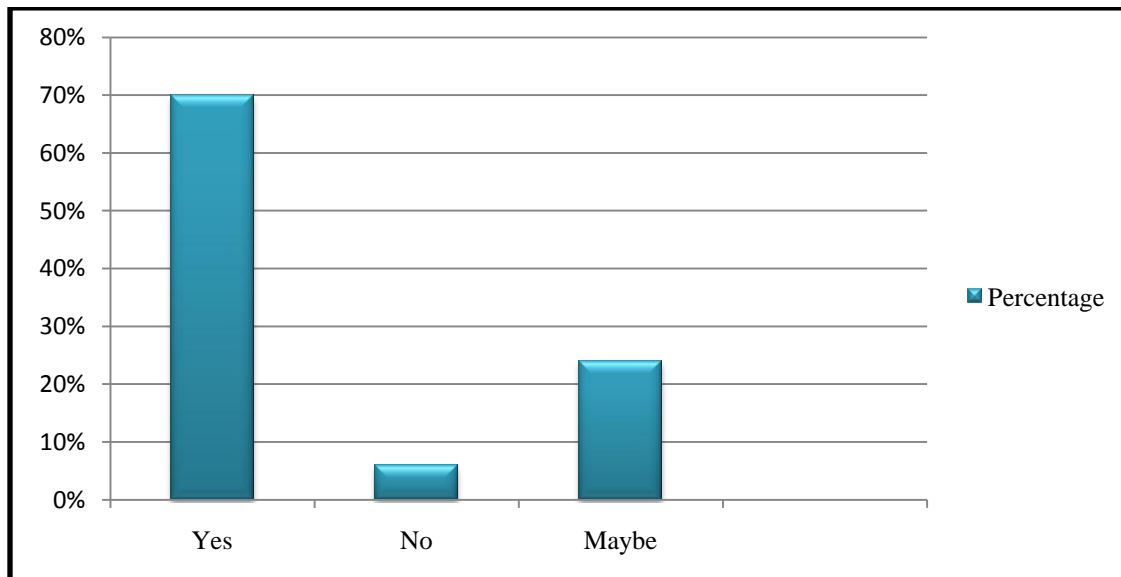
From the above chart, it is observed that 64% of the citizens are aware of the importance of using electric vehicles and 36% of them are unaware of the importance of using electric vehicles.

## 2. Will you prefer to use electric vehicles in future?

Table No: 2

OPTIONS	NO OF RESPONES	PERCENTAGE
Yes	35	70%
no	3	6%
Maybe	12	24%
Total	50	100%

Graph No: 2



### Interpretation

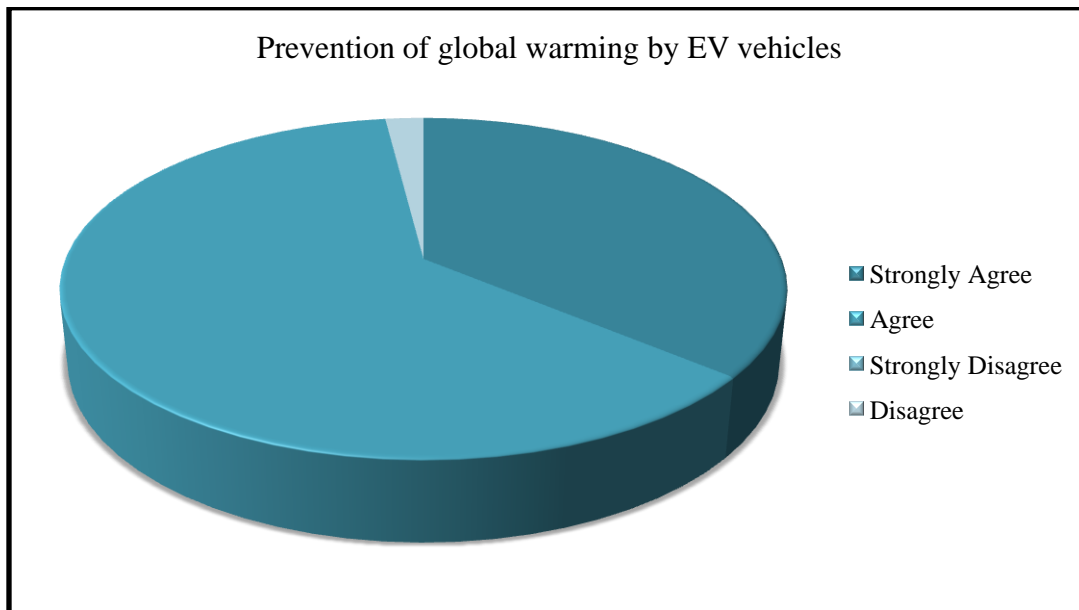
The above chart shows that 70% of the citizens agree that they will use Electric Vehicle in future, 6% of citizens deny using these vehicles and whereas 24% of the citizen says that they may use electric vehicle in future.

### 3. Do you think electric vehicles can prevent global warming?

Table No: 3

OPTIONS	NO OF RESPONES	PERCENTAGE
Strongly agree	18	36%
Agree	31	62%
Strongly Disagree	0	0%
Disagree	1	2%
Total	50	100%

Graph No: 3



#### Interpretation

The above chart shows the 36% of the people strongly agrees that Electric Vehicals will help to prevent the global warming, Whereas 62% consumers agrees with the statement and only 2% citizen disagree that Electric Vehicles will not help in preventing global warming.

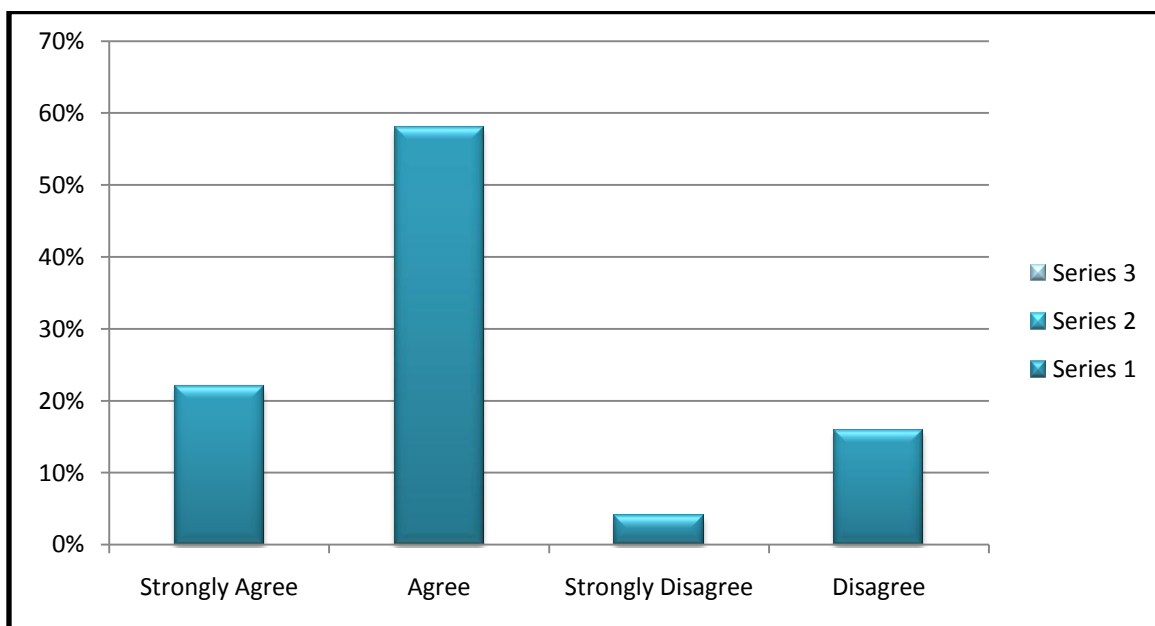


#### 4. Do you think that electric vehicle can replace regular vehicles in terms of satisfying consumer's needs?

Table No: 4

OPTIONS	NO OF RESPONES	PERCENTAGE
Strongly agree	11	22%
Agree	29	58%
Strongly Disagree	2	4%
Disagree	8	16%
Total	50	100%

Graph No: 4



#### Interpretation

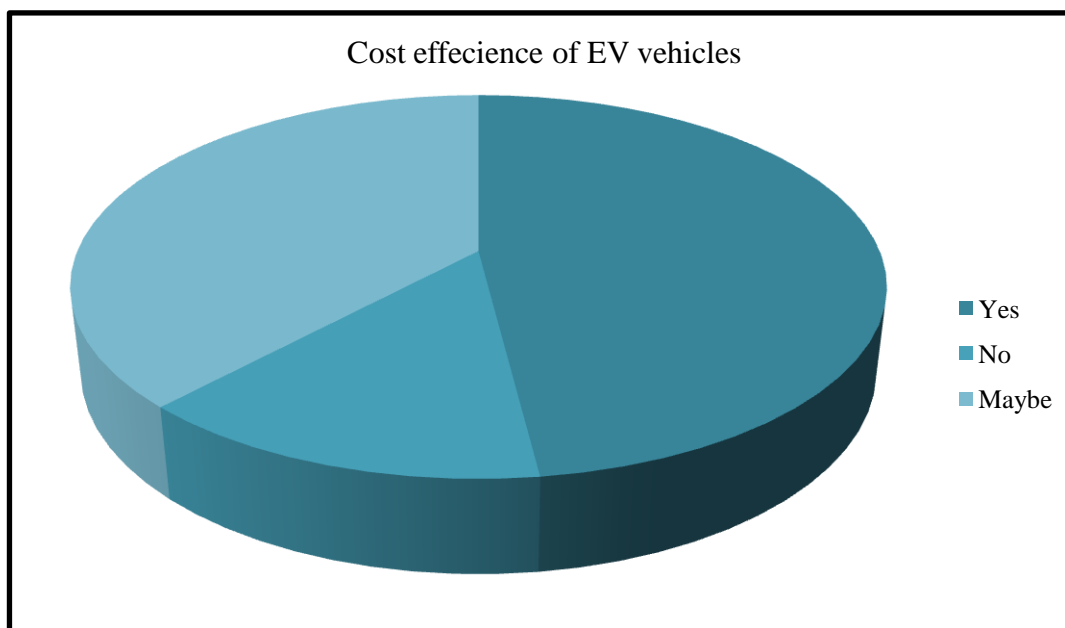
It is observed that 22% strongly agrees and 58% agrees that the electric vehicle can replace regular vehicles in terms of satisfying consumer's needs, and whereas 20% of the consumer disagrees that electric vehicle cannot replace regular vehicles in terms of satisfying consumer's needs.

### 5. Are electric vehicles cost effective for you?

Table No: 5

OPTIONS	NO OF RESPONES	PERCENTAGE
Yes	24	48%
No	7	14%
Maybe	19	38%
Total	50	100%

Graph No: 5



#### Interpretation

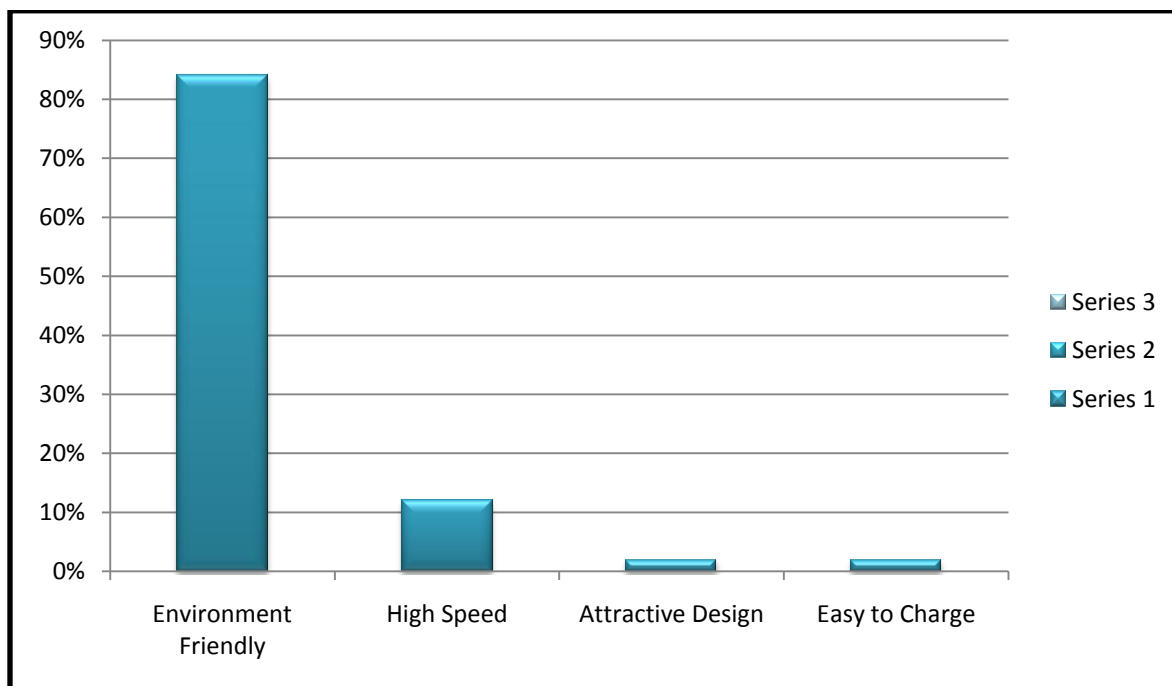
It is found that 48% of the consumer's agrees that electric vehicles are cost effective, 14% consumers disagree that electric vehicles are cost effective and 38% says that it may be cost effective.

## 6. What according to you are the benefits of using electric vehicles?

Table No: 6

OPTIONS	NO OF RESPONES	PERCENTAGE
Environment Friendly	42	84%
High speed	6	12%
Attractive design	1	2%
Easy to charge	1	2%
Total	50	100%

Graph No: 6



### Interpretation

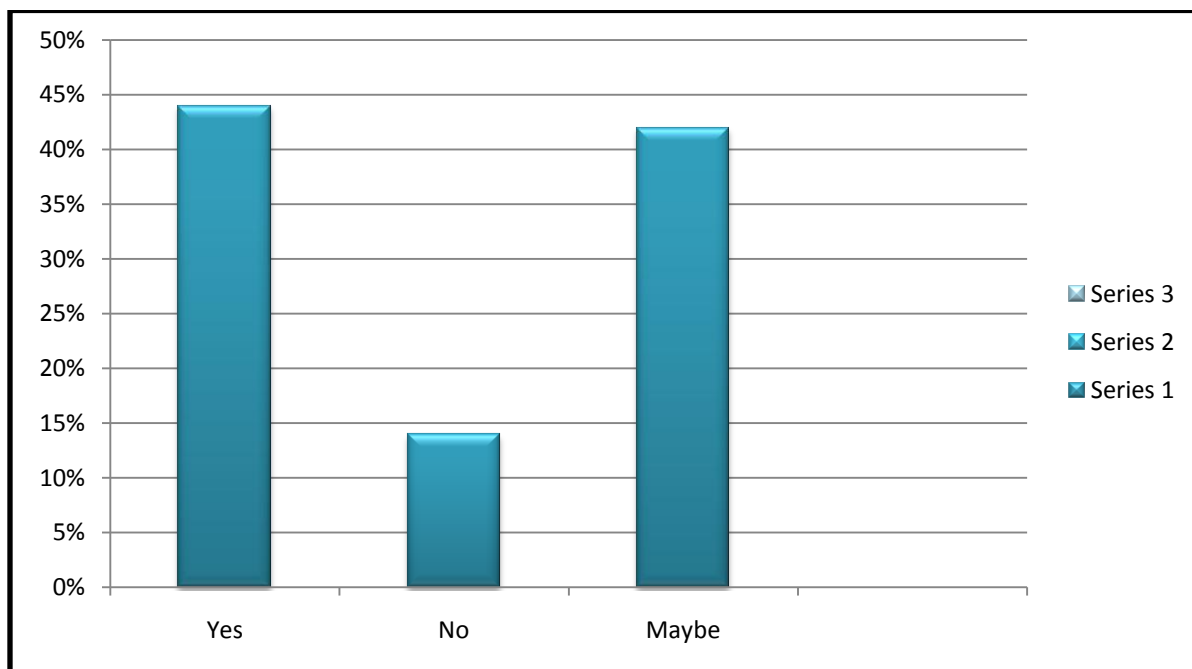
The above chart shows that 84% consumers says that Electric vehicles are environment friendly, 12% of consumers believes that the benefit of using electric vehicles is its high speed, 2% of consumers says that it has attractive design and whereas 2% of the consumers says that the benefit of using electric vehicles is that it is easy to charge.

## 7. Do you think that Electric Vehicle is better than the ordinary/regular vehicle?

Table No: 7

OPTIONS	NO OF RESPONES	PERCENTAGE
Yes	22	44%
No	7	14%
Maybe	21	42%
Total	50	100%

Graph No: 7



### Interpretation

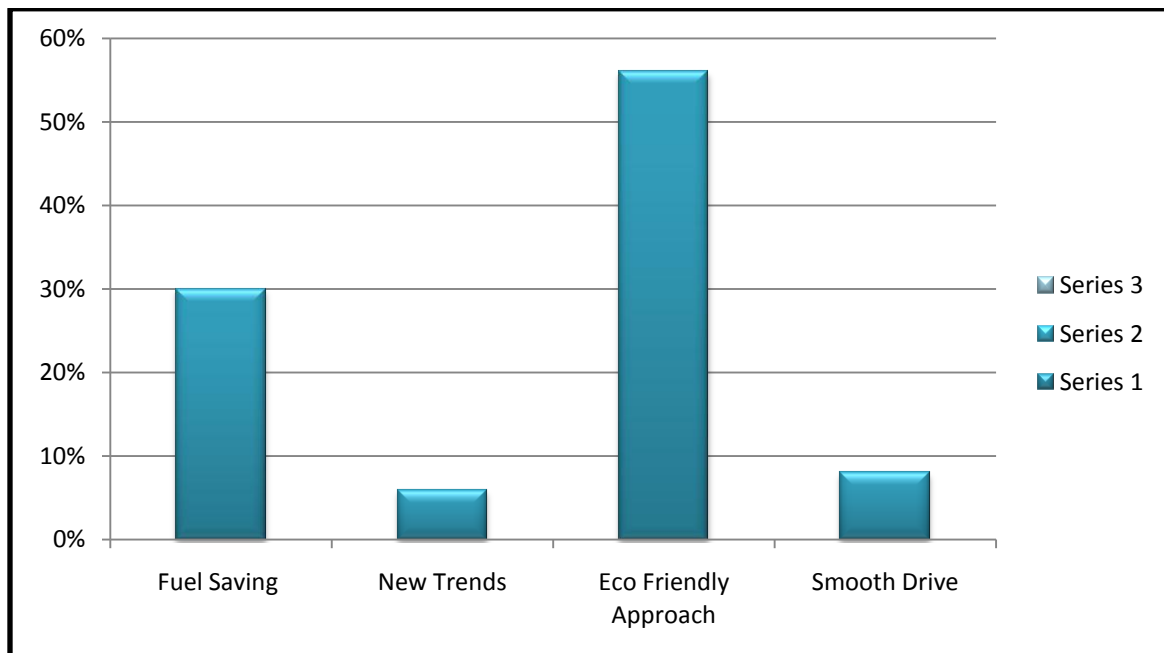
The above chart shows that 44% of the citizens agree that electric vehicles are better than the regular vehicles, 14% of citizens says that regular/ ordinary vehicles are better and 42% o citizen says that maybe electric vehicle can be better than the regular vehicles.

## 8. What Factors encourage you to consider buying an electric vehicle?

Table No: 8

OPTIONS	NO OF RESPONES	PERCENTAGE
Fuel saving	15	30%
New Trends	3	6%
Eco friendly Approach	28	56%
Smooth Drive	4	8%
Total	50	100%

Graph No: 8



### Interpretation

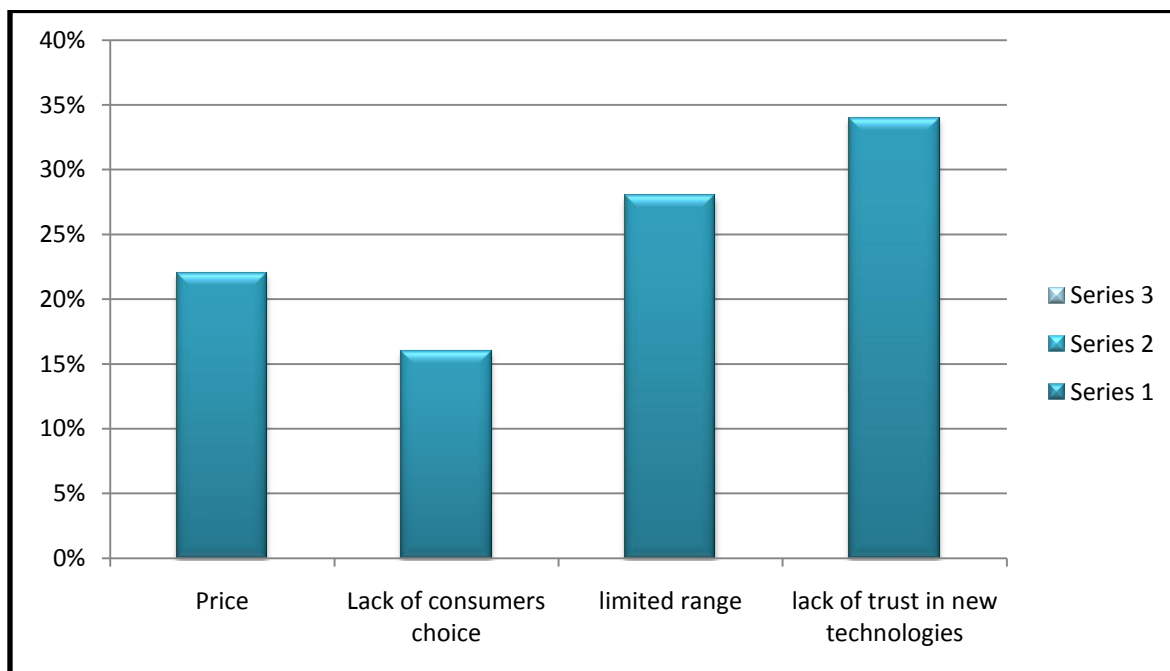
The above chart shows that 30% of consumers say that they are encouraged to buy electric vehicle as it saves fuel, 6% of consumer would buy it as it is trending nowadays, 56% of consumers would buy an electric vehicle as it is environment friendly and 8% would buy it as it is smooth to drive.

## 9. What Factors discourage you to consider buying an electric vehicle?

Table No: 9

OPTIONS	NO OF RESPONES	PERCENTAGE
Price	11	22%
Lack of consumers choice	8	16%
Limited Range	14	28%
Lack of trust in new Technologies	17	34%
Total	50	100%

Graph No: 9



### Interpretation

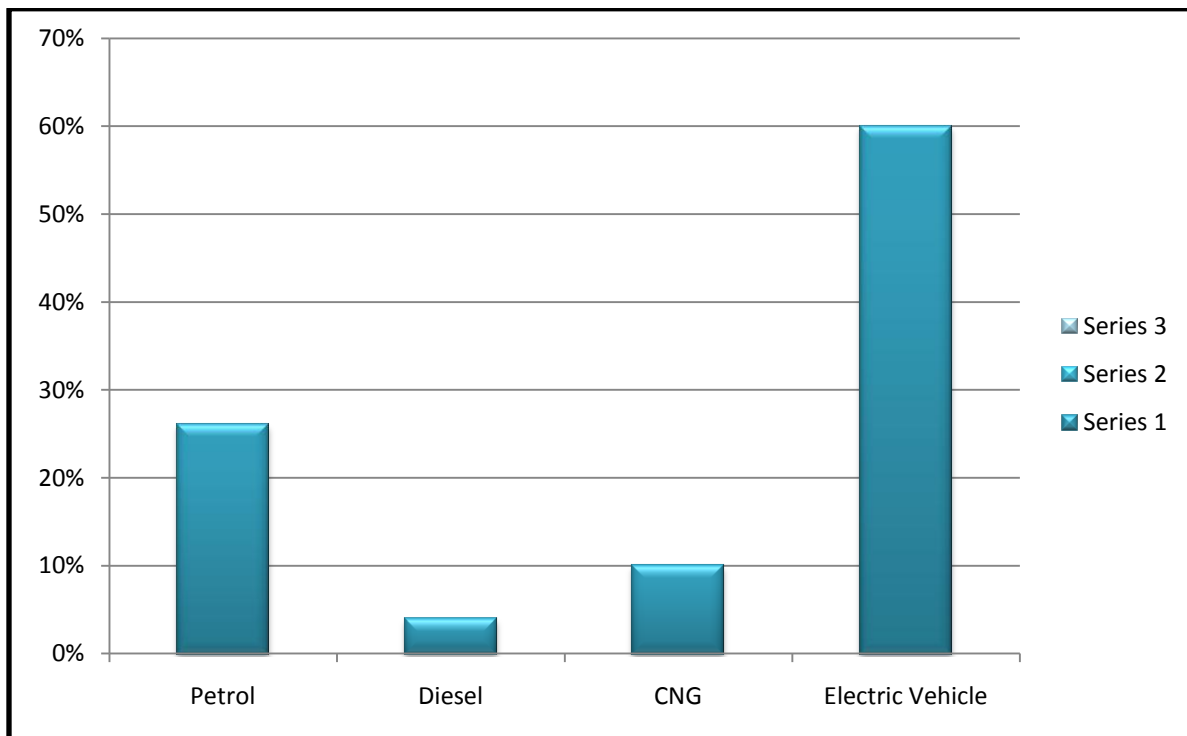
The above chart shows that 22% of citizens are discouraged to buy the EV vehicle because of its price, 16% of citizens are not fond of using electric vehicles, 28% are discouraged to buy these vehicles as it has a very limited range and 34% of people avoid buying these vehicles because they have least trust in new technologies.

### 10. Which type of vehicles do you prefer to buy?

Table No: 10

OPTIONS	NO OF RESPONES	PERCENTAGE
Petrol	13	26%
Diesel	2	4%
CNG	5	10%
Electric Vehicle	30	60%
Total	50	100%

Graph No: 10



#### Interpretation

It is observed that 26% of people will prefer to use petrol vehicles, 4% of people will use vehicles that requires diesel, 10% of them will use vehicles that run on CNG and whereas 60% of the people would prefer using electric vehicles.

**CHAPTER 6**  
**FINDINGS AND CONCLUSION**



## **FINDINGS**

Following are the findings based on the data interpretation of consumer's perception towards Electric Vehicles,

- Majority of the consumers are aware of the importance of using electric vehicles.
- Most of the people will prefer to use electric vehicles in future.
- Majority of the people strongly agrees that Electric Vehicles will help to prevent the global warming.
- Majority of the consumers agrees that the electric vehicle can replace regular vehicles in terms of satisfying consumer's needs.
- Most of the consumer's agrees that electric vehicles are cost effective.
- Majority of the people says that the major benefit of using electric vehicle is that it is environment friendly.
- Consumer's perception towards the use of electric vehicle is very much satisfying; majority of the consumers agrees that the electric vehicles are better than the ordinary/regular vehicles.
- Maximum citizens prefer to buy electric vehicle as it is environment friendly.
- It is interpreted that because of least trust in new technology majority of the people avoid purchasing these electric vehicles.
- It is interpreted that consumer perception toward the use of electric vehicle is much satisfying, so majority of the consumers will prefer using electric vehicles.

## **CONCLUSION**

The present study provides an overall positive perspective towards electric vehicles, among the sample. It was observed that more people are willing to shift to electric vehicles in the near future, realizing their impact on the environment. There is a need to make more brands and models of EVs known to people as although they receive support, consumers are seen to remain unaware of various models in the market. Electric vehicles are also seen as a solution to global warming by a large part of the sample.

**CHAPTER 7**  
**RECOMMENDATIONS/ SUGGESTIONS**

## **RECOMMENDATIONS/ SUGGESTIONS**

- This research suggested to the automobile industries to produce more electric vehicles after the level of consumer's interest towards electric vehicles measured.
- This study recommends to the government sector to give financial and business polices to enrich the electric vehicles.
- After the complete study, this research suggested that pollution can be reduced by using the electric vehicles.

# **ANNEXURE**

## **Questionnaire**

Q.1. Are you aware of importance of using electric vehicles?

- a. Yes
- b. No

Q.2. Will you prefer to use electric vehicles in future?

- a. Yes
- b. No

Q.3. Do you think electric car can protect from global warming?

- a. Strongly Agree
- b. Agree
- c. Disagree
- d. Strongly Disagree

Q.4. Do you think that electric car can replace regular cars in term of satisfying consumer needs?

- a. Strongly Agree
- b. Agree
- c. Disagree
- d. Strongly Disagree

Q.5. Are electric vehicles cost effective for you?

- a. Yes
- b. No

Q.6. What according to you are the benefits of using electric vehicles?

- a. Environment friendly
- b. High speed
- c. Attractive designs
- d. easy to charge

Q.7. Do you think that electric vehicles are better than the Ordinary/regular vehicles?

- a. Yes
- b. No

Q.8. What factors encourage you to consider buying an electric car?

- a. Price
- b. Promotion
- c. New trends
- d. Test drives

Q.9. What factors discourage you to consider buying a electric car?

- a. Price
- b. Lack of consumer choice
- c. Limited range
- d. Lack of trust to new technologies

Q.10. which types of vehicles do you prefer to buy?

a. Petrol

b. Diesel

c. CNG

d. EV

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