

## “Emerging advertising strategy and trends for promoting green vehicles: Consumer Based Analysis-Road to Sustainability”

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### Abstract

Worsening state of environment is a foremost concern for the world today. Vehicle pollutants cause immediate to think of ways to reduce its carbon footprint and adopt more sustainable practices. The automobile industry that the industry has on our planet. The objective of the automobile sector should not just be to develop environmental friendly products but also to carve a unique and a strong environment friendly identity too. The study focuses to probe the green initiatives of prominent automobile industries in India, the level of consciousness and perception of customers towards green vehicles and their green advertisements. The study is limited to green cars only. The study may be helpful to the automobile companies, marketers and retailers to work out a good green marketing campaign for their vehicles, after understanding the level of awareness and perception of consumers on green initiatives of automobile companies. The population of the study has the techniques of “Convenience Sampling”. It is a quantitative study and has used questionnaire and content analysis to collect data.

**Keywords:** Green cars, Green initiatives, Green marketing, Green advertising, Sustainability

### Introduction

Environmental pollution has reached almost the threshold level in India. To mitigate environmental issues, the Indian Government has also decided to encourage Electronic Vehicles (EV) to reduce pollution. The country prepares to shift towards EVs by 2030. The government desires the car manufacturers to migrate to EV production, which will curtail the oil bill by US\$60 billion, reduce emissions by 37 per cent and decrease the dependence on the imports of fuel, thus protecting from susceptibility against crude prices Indian Automobile Manufacturer (SIAM, 2017), EVs would make up 40 per cent of new car sales by 2030 and 100 per cent by 2047. Adopting green technology by the automotive industry is imperative for the future of the environment and the car manufacturers are pushing forward the competition by following the ecological and sustainable path, staking on hybrid the term “green”, implies an underlying concern for preservation of the environment and a non-invasive lifestyle. Considering the automotive industry, transport accounts for roughly a third of greenhouse gases emissions worldwide and majority of population considers it as one of the most evident.

Customers who are price sensitive and reside in developing countries, like India and neighbouring constraint and refrain from such products. In this case, it is paramount to understand that whether the consumer behaviour is changing toward paying a higher price for the product, which is eco-friendly or safer for the environment (Chan et al., 2012a). In the context of the automobile sector, the Indian consumers are sometimes willing to pay a slightly higher price, if their vehicles will save some money in terms of fuel, or for purchasing of alternative fuel option such as Natural Gas), and Battery powered. Therefore, if we see the recent trends in Indian automobile industry, are focusing on the eco-friendly cars and appealing to their customers successfully. Maruti Suzuki, Hyundai, Mahindra & Mahindra and many more in India are focusing on the production of greener cars.

### Green advertising

The green product marketplace has grown in the last decade (Lee, 2014). There has been a gradual increase in research on green marketing and green consumer behaviour studies in India since 2008. Today advertising is playing a new role, the role of creating advertisements that show environmentally friendly products. According to Julia Corbett Green advertising is defined as product ads flaunting environmental benefits or corporate green image advertisements. Worldwide evidence shows that concern for the environment encourages consumers to change their behaviour.

Popular culture and the mass media play an enormous role in shaping people's perception and understanding of environmental issues. Nature has become a marketing device in advertising. The automobile industry makes the best use of nature by using nature, weather, and adventure all of which contradicts the fact that cars pollute our environment.

### Characteristics of Green Advertising

- a) An advertisement that directly or indirectly addressed the relationship between a product, the physical environment, and the biological life forms within the environment.
- b) An advertisement that promoted a green lifestyle with or without highlighting a product/service; and
- c) An advertisement that presented a corporate image/identity or an action of environmental responsibility (Banerjee et al., 1995)

### Review of Literature

Global pollution is on the rise and each effort made, is to cut back the CO<sub>2</sub> emissions and save the vehicles as the automobile sector is one of the largest emitter of CO<sub>2</sub> and therefore it is important to decrease it. The Indian government has devised ambitious plans of introducing EVs to the Indian market and narrow the pace with the event of EVs globally. The National Electric Mobility Mission Plan 2020 has included a detailed report on the EVs. India faces a huge challenge in shifting the transportation sector from ICE engines to EVs. It requires a lot of planning along with research and development. Charging infrastructure must be adequately built to deal with range anxiety. It is important to form demand generation by making all government buses own EVs (Kumar & Sanjeevikumar 2019). India.

It contributes to about 18% in transport sector in terms of carbon emission. The EV is one of the possible alternative solutions to defeat the crises efficiently. Many automobile companies are introducing EVs and are expanding their portfolio. Promoting EVs can help reduce dependency on fuel and pollution and benefit both consumers and the nation. The educational level of people has a considerably higher from manufacturers, Government should try hard to create awareness and a positive perception among potential customers (Masurali & Surya, 2018).

India scenario is different because the current market share of EV/PHEV is only around 0.1% and almost all vehicles consider fossil fuel-based transportation. These pollute the atmosphere by the production of greenhouse gases and causes global warming. The gap between domestic petroleum production and consumption is broadening. India imports around 70% of oil needed per annum. Therefore there is an urgent need to explore issues and challenges for sustainable and cleaner alternatives (Gujarathi, et al., 2018). Selection of cars depends upon ecological concern, cost, comfort, trust, technology, social acceptance and availability of infrastructure. These arguments have been tested for both conventional cars on individual choice of vehicle and also found that both EV manufacturers and government need to invest more for social acceptance of the vehicles and this can be done by improving infrastructural facilities and giving more thrust on technology to create trust. It is clear from the analysis that the population responsibility rests on the shoulders of the government and manufacturers to invest in the manufacturing of EVs (Bhalla, et al., 2018). The government should develop an aggressive strategy for the adoption of EVs in India and ensure a well-executed implementation. India's geography and diversity pose problems that require thoughtful solutions. Purchasing four-wheeled accelerate the growth of EVs. Though, the private EVs may take 5-6 years to gain acceptance and Uber, and food distribution operators like Swiggy and Zomato, will boost the initial growth of two and four-wheeled electric vehicles (Kesari, et al., 2019).

Indian companies recently have started talking steady steps to be ecologically conscious. But some of the studies revealed that the automobile firms are still hesitant of showing themselves to be environment friendly irrespective of such features (Vatsa, et al., 2015). One obvious reason for this may be the lower level of consumer awareness. Leading Indian Corporates like the Tata, Unilever, Mahindra, Wipro and ITC are all actively participating in green and sustainability initiatives. Companies have now noticed the increasing demand for green products and breed of green consumers (Luo & Bhattacharya, 2006).

Interest in developing sustainable lifestyles creates demand for green consumption. Consumers are becoming more aware, responsible and driving change in the marketplace. In response, companies are also integrating appropriate green strategies into their operational activities, product development processes, and promotional activities to gain a

competitive advantage in saturated markets. This will help companies to maximize their market share and minimize production costs (Malyan & Duhan, 2018). The use of language of the environmental protection movement and green imagery by the advertising industry has been criticized. Green advertisements have been perceived as a means to create and foster new consumer desires and to inject competition into the market in a way that does not rely upon price and even denies it as a factor (Holder, 1991). Green and Peloza (2014) proposed that how consumers respond to advertising appeals that inspire environmentally friendly consumption behaviour context.

Bickart and Ruth (2012) observed consumers' perception of a green advertisement is affected by brand familiarity and it plays a very dominant role in managing it. When consumer environmental concern is high, an on-package eco-seal included in an advertisement copy helps familiar brands, but hurts unfamiliar brands. According to Kangun et al. (1991) low environmentally concerned consumers evaluate the familiar brand more favourably than the unfamiliar brands. Consumers' trust (or skepticism) in advertisements claiming the green performance of the product. In the car market a strong brand image conveys the quality and the features of the car therefore, it is important to customer.

Efficient regulation of green advertising has been the objective of a number of public policy studies. Green advertising usually involves the practice of claims that either underlines the association between the product/service with the environment, or the commitment of brand towards the ecosystems (Banerjee, et al., 1995).

### **Statement of the problem**

Automobile companies are employing numerous green practices to save costs to increase its competitiveness in the market and to create environment conscious brand image for themselves. The automotive sector is an important source of employment and economic growth but it is also the prime polluters of the environment. Car manufacturing companies have been trying various innovative ways to control their environmental impact through efficient production systems, fuel efficient engines, eco-friendly design, eco-friendly materials for car components, etc. This study focuses on examining the green operations initiatives of the prominent Indian automobile brands and also to understand the customer perception of purchasing green cars and towards their green advertisements.

### **Objectives of the study**

1. To study the various green marketing initiatives adopted by leading automobile players in Indian market environment and opportunities and challenges in implementing these initiatives.
2. To understand the customer perception towards purchasing green cars.
3. To identify those factors that motivates the customers to purchase green cars.
4. To identify those factors that discourages the customers to purchase green cars.
5. To understand the customer perception towards green advertisements of green cars.

### **Significance and scope of the study**

Indian automobile industry is gearing up for transformation and companies have started adopting green marketing practices in recent times though they are facing many obstacles in implementing green marketing practices in the India. The study focuses to probe the green initiatives of leading automobile industries in India, the level of awareness and perception of customers towards green vehicles and their green advertisements. The study is limited to eco-friendly cars only. The study may be helpful to the automobile companies, marketers and retailers to work out a good green marketing campaign for their vehicles, after understanding the level of awareness and perception of consumers on green initiatives of automobile companies.

The Population of the study was identified from Bangalore city and a sample of 100 customers has been selected from the population using the techniques of "Convenience Sampling". The scope of the study is limited to the customers in Bangalore city.

### **Methodology**

It is a quantitative study and used questionnaire and content analysis to collect data. Primary data was collected through questionnaire designed using Google docs and its link was sent to 100 respondents residing in Bangalore city. The participants included both genders that were between the age group of 21- 56 years from middle and upper

socio-economic backgrounds. Secondary data were collected by conducting a comprehensive literature survey of text books, national and international referred journals, magazines, newspapers, government publications, websites etc.

## Discussions

Green initiatives of automobile sector All over the world renowned automobile companies are adopting green initiatives. However, adoption of green technologies as well as marketing strategy in Indian automobile industry is in a nascent stage. Based on the concept of green marketing, numerous cars have come into in the market including hybrid electric vehicles, plug-in hybrid electric vehicles, battery electric vehicles, compressed-air vehicles, hydrogen and fuel- cell vehicles, neat ethanol clean diesel vehicles, and some sources also include vehicles using blends of bio diesel and ethanol fuel or gasohol.

Tata Motors, Mahindra & Mahindra, General Motors and Hyundai are in close competition with each other in producing green cars in India. Tata Nexon EV, Tata Tigor EV, Tata Tiago EV, Hyundai Kona Electric, Mahindra e-Verito, Mahindra e2oPlus, MG ZS EV, Strom R3, Jaguar i-Pace, Mercedes-Benz EQC are currently available in the Indian market. In the next two years many more like Maruti, Toyota, Honda, Hindustan Motors, and Volkswagen may enter the market. During July 2021, total registered EV sales were at 26,127 units, whereas in July 2020, total EV sales were at 7,512 and are expected to grow at 26% in FY21-23 (Fitch Solutions). The green initiatives taken by the top four key players in the EV Car market in India.

### Tata Motors

Tata Motors is vigorously working towards a low carbon strategy and is the leader of the environment friendly alternate fuel mobility in the country. Being a 'Future Ready' responsible corporate and a signatory of RE100 initiative, it aims to source 100% renewable electricity by 2030. Tata Motors under its 'Go Green' initiative in association with an NGO, will plant a sapling for the sale of every new commercial vehicle and for those customers who will get their commercial vehicle serviced. They have introduced Tata Nexon EV, Tata Tigor EV, Tata Tiago EV and Jaguar i-Pace electric vehicles in India.

Jaguar Land Rover (JLR) has launched research projects like REEVolution, REHEV and Range-e automobile company to launch vehicles with Euro (emission) norms well in advance of the mandated date and is focused on making its engines more environment-friendly. The Jaguar XF MY12 line-up consists of a diesel version with Intelligent Stop-Start technology which makes it the most fuel efficient.

### Mahindra & Mahindra (M&M)

Mahindra & Mahindra is all set to become a carbon neutral company by 2040 and is focusing on energy efficiency and the use of renewable power to achieve this goal. M&M was the very first company in the world to pledge to double energy productivity by adoption of the Climate Group's program EP100. It has doubled the energy productivity of the automotive business almost 12 years ahead of schedule by using conditioning (HVAC), ventilation, motors and heat recovery projects.

### Morris Garages (MG)

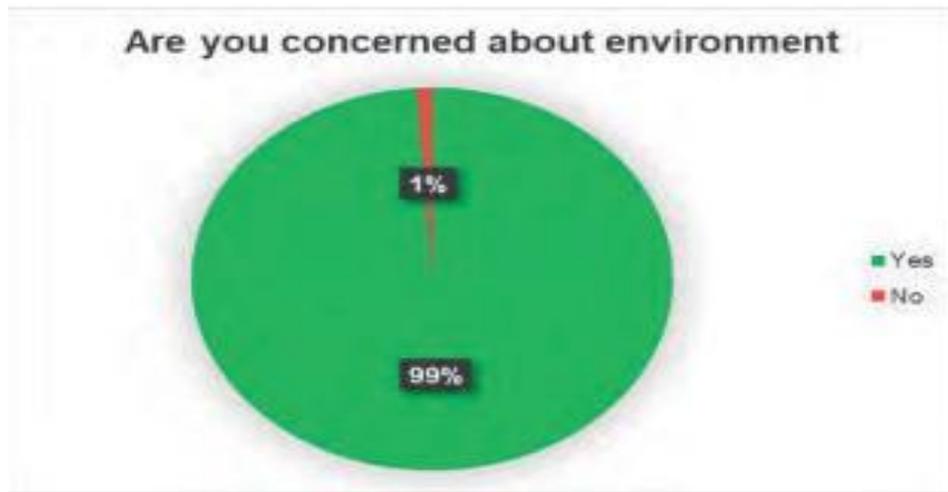
MG Motor India has joined hands with TESAMM, a global e-waste recycling and end-to-end service provider for building a robust EV infrastructure to facilitate India's transition to green mobility. The partnership will ensure greater peace of mind to the ZS EV owners about their ecological footprint by secure recycling of MG ZS EV batteries, thus ensuring environment sustainability. MG is committed to develop a comprehensive EV ecosystem that supports India's drive towards its greener and cleaner future

### Sample Description

Out of the 100 respondents who participated in the study, 72 per cent were male and 28 per cent were female. In terms of age (14%) of the respondents were aged between 21 to 28, (17%) were between the age group of 28 to 35, the majority (30%) were aged between 35 to 42, (20%) between 42-49 and (19%) were aged between 49-56 years. In terms of graduates, 34 per cent were Graduates and 12 per cent had doctoral degrees. (25%) of the respondents

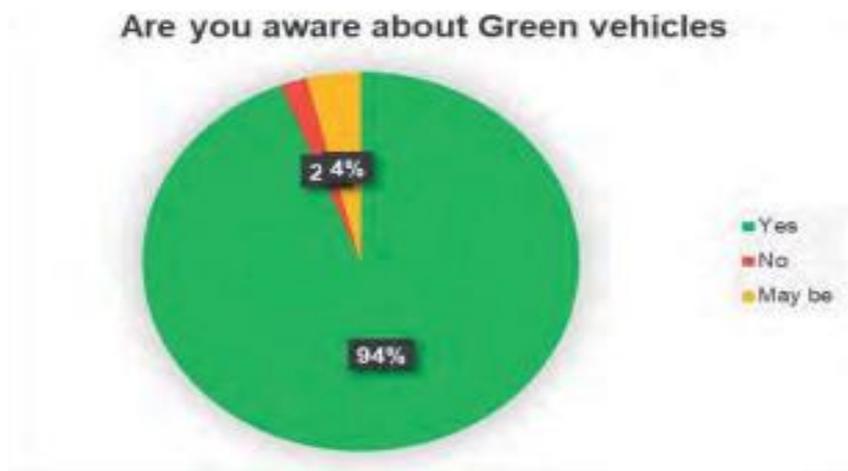
earned an annual income in the category less than R6000000, 12% between R600000 to R800000, and 12% in the R800000 to R1000000 category, 2% between R1000000- 1200000 category. The majority (49%) of the respondents belong to the category of more than R1200000

### Data Analysis



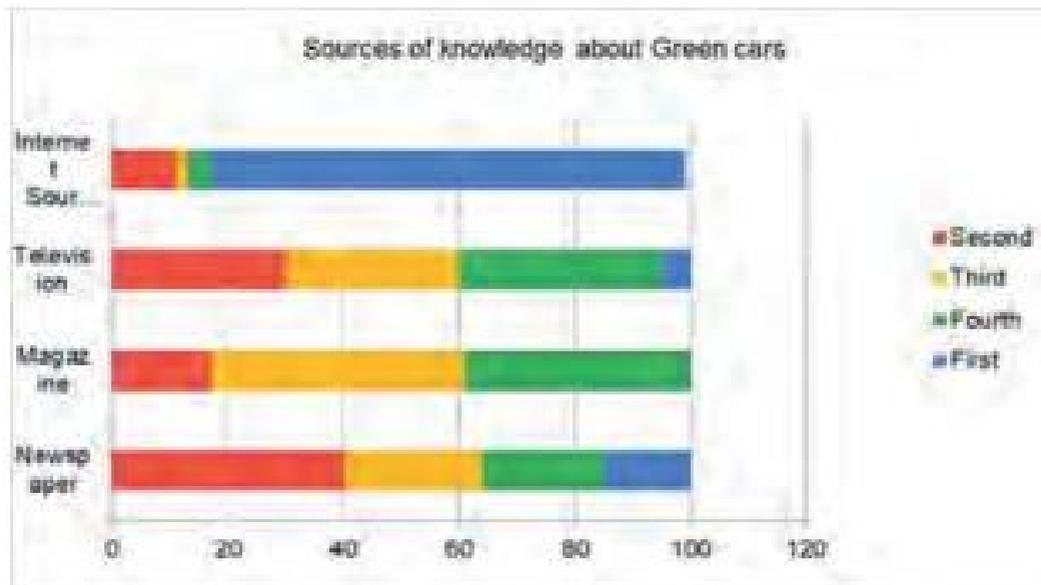
**Figure 1: Concern for the Environment and Environment- friendly products attributes**

Out of 100 respondents who were surveyed, majority 99 per cent (Fig.1) gave importance to environment-friendly products features while purchasing products and showed a concern for the environment. Only 1 per cent of the respondents showed no concern towards the environment and environment-friendly products features.



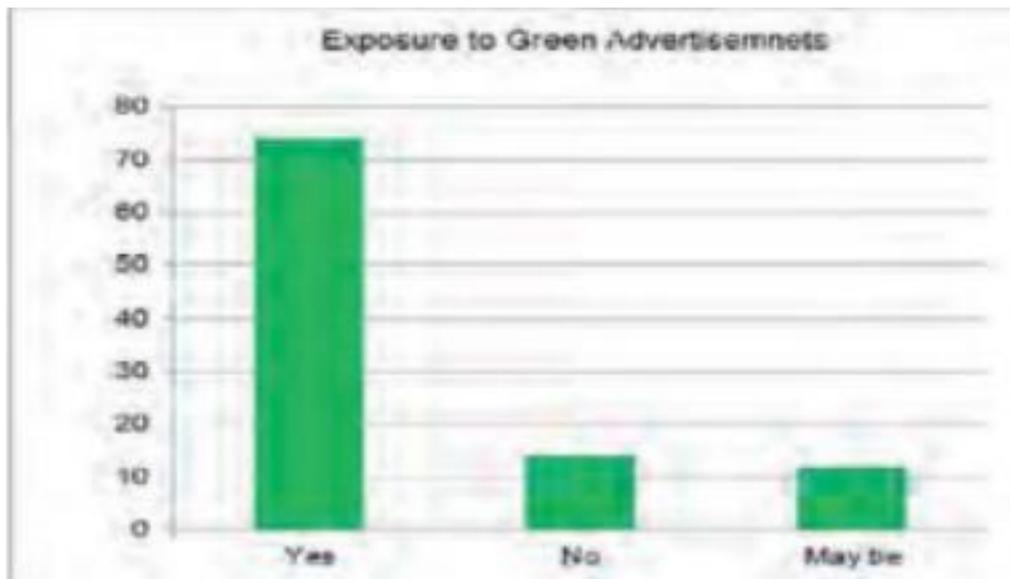
**Figure 2: Awareness about Green Vehicles**

94 per cent (Fig. 2) of the respondents were fully aware of green vehicles, 4 per cent respondents had some awareness and only 2 per cent knew nothing about the green cars. Thus it can be concluded that out of the respondents' surveyed, a very large section of respondents were fully aware about green cars.



**Figure 3: Sources of Knowledge about Green Cars**

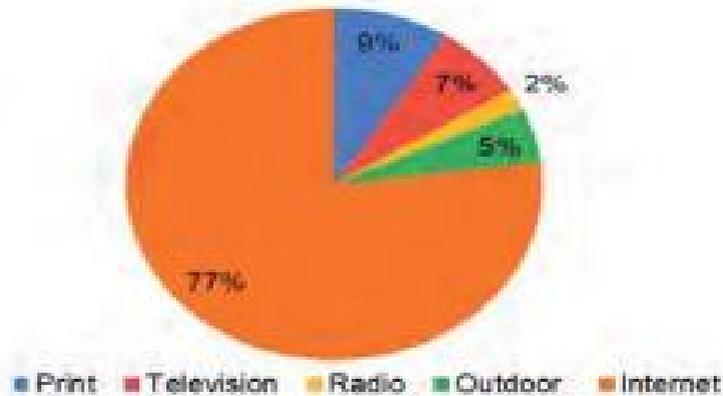
Figure 3 depicts the sources of knowledge about green cars among respondents. Out of the 100 respondents surveyed, for majority, internet was the most important source of knowledge and information about green cars, followed by newspapers, television and magazines respectively.



**Figure 4: Exposure to Green advertisement of Automobiles**

74 per cent of the respondents (Fig. 4) had seen green advertisements of automobiles in the past, 14 per cent were not sure about the exposure to such ads and 12 per cent had never seen green automobiles advertisements

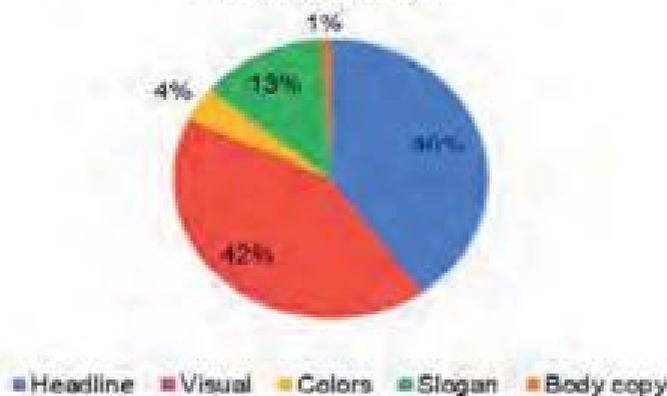
### Medium of exposure to Green Automobile advertisements



**Figure 5: Medium of exposure to green automobile advertisements**

Figure 5 depicts the medium through which respondents were exposed to green advertisements. Out of the 100 respondents surveyed majority 77 were exposed to green advertisements through Internet, followed by Print (9) and Television (7) respectively. Outdoor (5) and Radio (2) were ranked lowest in terms of ad exposure.

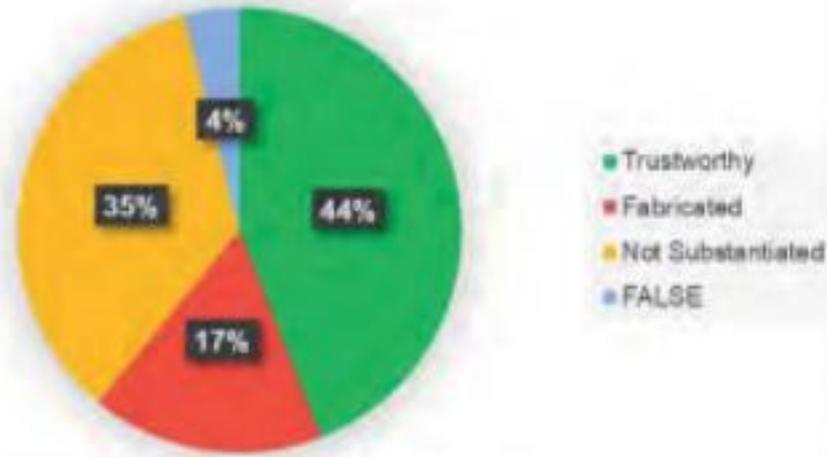
### Attention grabbing elements in a print advertisement



**Figure 6: Attention grabbing elements in print advertisements of Green automobiles.**

In a print advertisement of green cars, visual was most effective element that grabbed the attention of the respondents (42%), followed by headline (40%), slogans (12%), colours (4%) and the body copy was the least effective element.

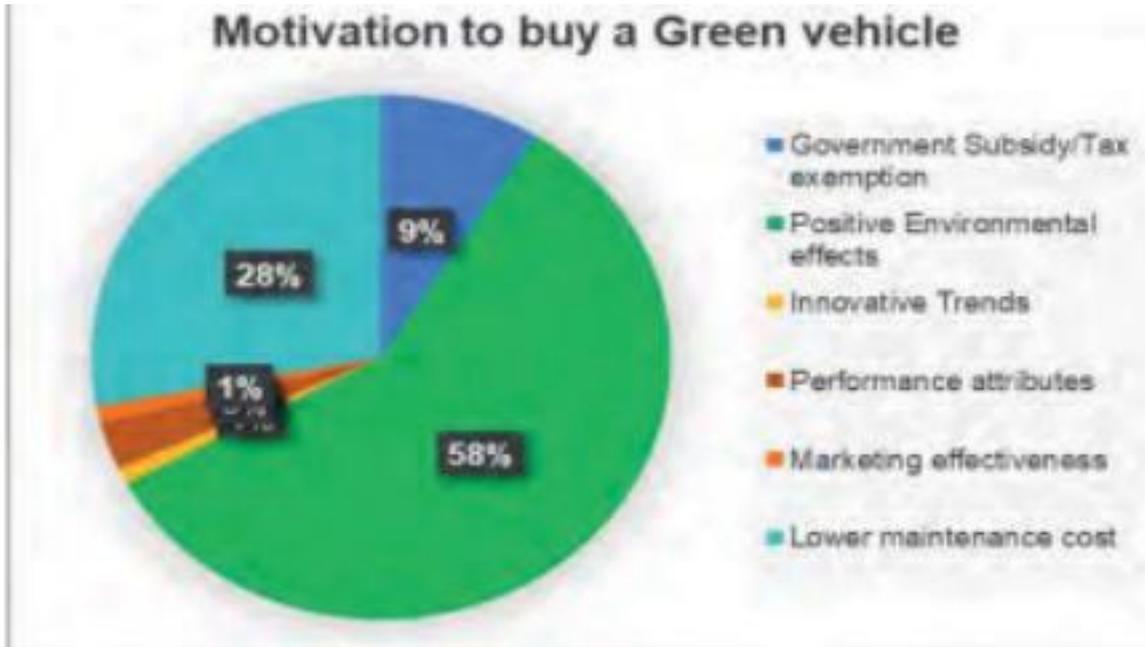
### Claims made in Green advertisements of automobile



**Figure 7: Claims made in advertisements of Green Cars**

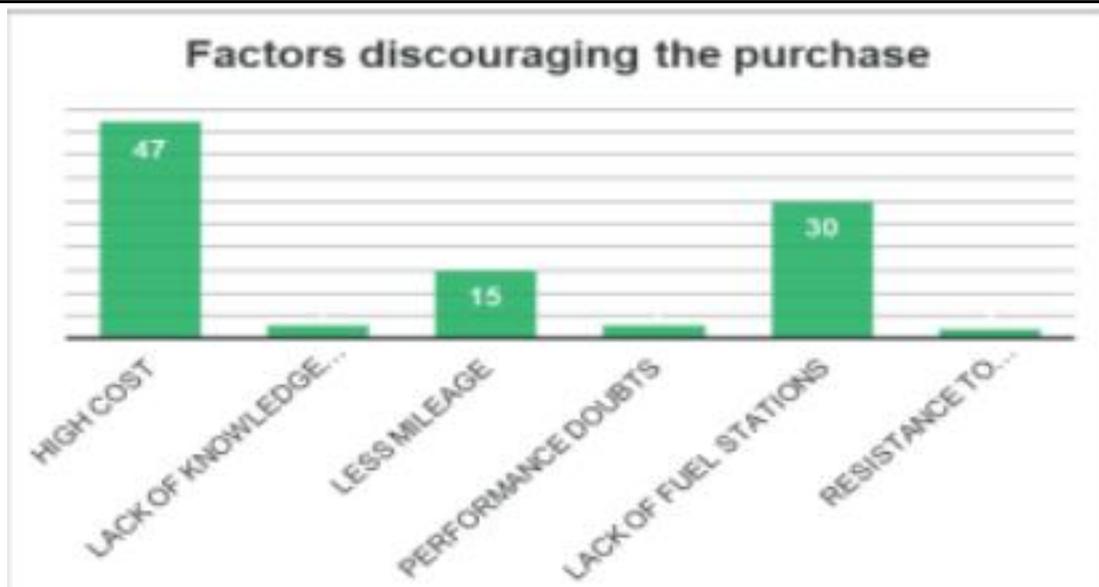
Out of the total respondent’s majority 44 per cent found the environmental claims made in the green advertisements of cars trustworthy, 35 per cent felt that the claims were not substantiated well enough and 17 per cent of the respondents felt that the claims were fabricated and 4 respondents found the claims to be false.

### Motivation to buy a Green vehicle



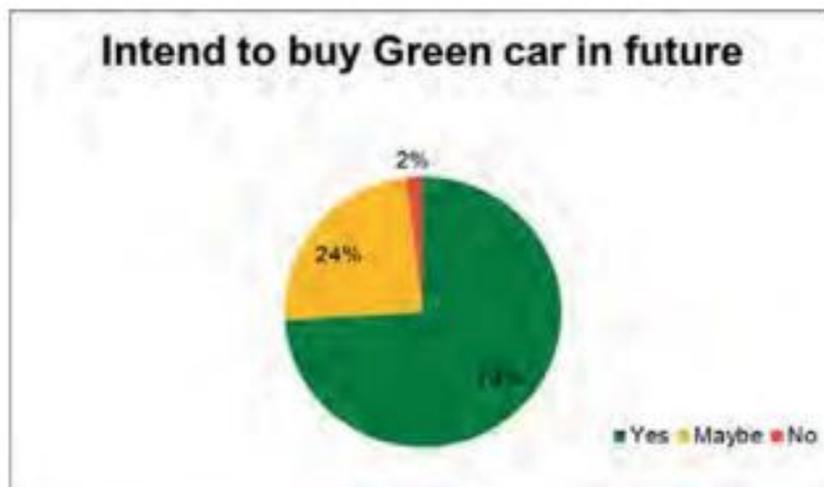
**Figure 8: Factors that motivate to buy a green car**

The analysis of factors that encourage the purchase of green cars revealed that for majority 58 per cent of the respondents (Fig. 8), the motivating factor for purchasing green cars was positive environmental maintenance cost of green cars, 9 per cent were motivated by Government Subsidy/Tax exemption, followed by performance attributes (3 per cent) and innovative trends & marketing effectiveness by 1 per cent each.



**Figure 9: Factors that discourage the purchase of Green Cars**

It can be seen in Figure 9 that the highest barrier to purchase green cars by the respondents was high cost (47%). Purchasing power plays an important role in determining the selection of green cars. The second highest barrier is lack of fuel stations (40%). The major obstacle in buying behaviour of green cars was less mileage (15%) and the other discouraging factors were related to doubts about performance, lack of knowledge and resistance to change.



**Figure 10: Intend to buy Green car in Future**

Figure 10 depicts that 74 per cent of the respondents intend to buy a green car in future and 24 per cent were open to the idea but not very sure. Only 2 per cent of the respondents showed no interest in the purchase of a green car in the future.

### Conclusion

Delhi was ranked as the most polluted capital in the world and India was placed third with worst air quality out of 106 countries in 2020 in the World Air Quality Report by IQAir. The air pollution from fossil fuels has led to at least 30.7% of deaths in India which means that around 2.5 million people die every year due to breathing toxic air. Reducing tailpipe emissions from urban transportation is critical to address climate change and electric vehicle promise zero tailpipe emissions and a reduction in air pollution in cities.

The Indian government is leaving no stones unturned to encourage faster adoption and manufacturing of hybrid and electric consumers are becoming aware of sustainability issues due to the green marketing initiatives adopted are concerned for the environment are more likely to adopt EVs. From the study it is inferred that majority of the respondents do have an awareness of the green vehicles. Though there is a need for a more aggressive promotional strategy to encourage the enactment of environmentally friendly consumption and not just recognition of the issue.

The green mission seems to be a universal common factor for every car manufacturer and they need to use the right tools to encourage consumers. Only those manufacture who are willing to accept the current challenge will be able to face the crisis and catch the opportunities created by market of road transport will not only assist a post-pandemic Delhi was ranked as the most polluted capital in the world and India was placed third with worst air quality out of 106 countries in 2020 in the World Air Quality Report by IQAir. The air pollution from fossil fuels has led to at least 30.7% of deaths in India which means that around 2.5 million people die every year due to breathing toxic air. Reducing tailpipe emissions from urban transportation is critical to address climate change and electric vehicle promise zero tailpipe emissions and a reduction in air pollution in cities.

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The high cost of EVs is a major deterrent in adoption as compared with a similar conventional vehicle. There are several other factors that discourage people from EV adoption such as lack of fuel stations, shorter driving range and limited number of products also. The incentives offered support the acceptance of an EV.

India stands at the cusp of a revolution when it comes to EVs and presently in India 1% of the total car sales are EVs. This number is expected to be rise to a great extent. Automobile companies have the opportunity to not only become more the foundation for a positive societal change and champion the protection of the environment at the same time. Future belongs to Green Technology, and as the industry progresses, we will continue to see our planet getting cleaner and air becoming fresher. As pollution is on the rise in many cities in India, these electric vehicles are a viable solution to the problem for people who care for the environment. The change towards EVs in India is imperative in the near future, though not imminent.

In summation, the ascent of electric vehicles in India signifies a seismic transformation poised to alleviate the nation's vexing transportation quandaries. While the labyrinthine challenges of cost dynamics and charging infrastructure must be diligently surmounted, the unwavering commitment of the government, the relentless march of industry innovation, and the burgeoning enthusiasm of the discerning Indian consumer collectively provide compelling testament to the notion that EVs are primed to redefine the nation's transportation paradigm. As India navigates its inexorable course towards a future characterized by electric mobility, the question of whether EVs indeed constitute the future of transportation appears increasingly susceptible to a resounding affirmation.

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