THE FUTURE'S GREEN TECH VEHICLES

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ABSTRACT
The growth of marketing in the automobile industry has been rapid over the last several years. Automotive companies have realized the importance of marketing and have invested heavily in the development of targeted marketing strategies. Marketers have used a variety of tactics to reach potential customers, including digital marketing, social media, and event marketing. Digital marketing has allowed automotive companies to reach a wider audience and create personalized experiences for customers. Social media has also become an important part of marketing in the automobile industry, with many companies using Platforms such as Facebook, Twitter, and Instagram to interact with customers and advertise their products. Event marketing has also been used by automotive companies to create brand awareness and reach a larger audience. Overall, the growth of marketing in the automobile industry has been significant and has allowed companies to reach a larger audience and create personalized experiences for customers. This study focuses on the advancement of ELECTRIC VEHICLES in automobile industry.

Keywords: *Automobile industries, Electric vehicles, Marketing.*

1. PRELUDE

The automobile industry in India is one of the largest in the world and one of the fastest growing industries in the country. The industry accounts for 7.1% of the country's Gross Domestic Product (GDP). India is home to several global automobile companies, including Maruti Suzuki, Tata Motors, Mahindra & Mahindra, and Hero Moto Corporation. India has emerged as a major global hub for manufacturing small cars and SUVs. With the support of the government, the automotive industry has seen a significant transformation in terms of manufacturing, exports, and technology. The Indian auto industry is highly competitive and is dominated by a few large companies such as Maruti Suzuki, Hyundai, Honda, Toyota, and Mahindra & Mahindra. The sector is highly regulated and the government has implemented several policies to promote the industry's growth and development.

2. OBJECTIVES

- To understand about the automobile industries in India.
- To observe the usage of electric vehicles in India.
- To highlight the postulates and obstacles about EV's in India.
- To give opinions for future developments of EV's.

3. REVIEW OF LITERATURE

3.1. **IBEF Team (2022)** India enjoys a strong position in the global heavy vehicles request as it's the largest tractor patron, alternate- largest machine manufacturer, and third- largest heavy exchanges manufacturer in the world. India is presently shifting focus to electric buses to reduce emigrations.

3.2. **SanjayBhatia (2022)** The Indian machine assiduity enjoys a strong request for its products despite some regions recovering from the after- goods of the epidemic and geopolitical pressures. According to the Government of India's estimates, India is anticipated to come the third largest machine patron in the world by volume after China and the US by 2026.

3.3. **IBEF Team (2022)** Electric Vehicles (EVs) have witnessed healthy growth, as consumers are seeking affordableeco-friendly transportation supported by government impulses. The Indian EV request is still in its immaturity but anticipated to advance at a CAGR of 90 from 2021 to 2030.

3.4. **Tatacapitalblog(2022)** Electric vehicles manufacturing come with colorful cost optimizations and reduction in the GST exoduses for the client. Still, they also come with varying manufacturing challenges, structure constraints, and client resistance to espousing them.

3.5. **Anshul Agarwal (2022)** To address raging environmental enterprises and shifting energy prices, the world appears ready to transition to electric vehicles. The terrain isn't the only advantage of EVs. They're also bring-effective to operate and maintain.

4. THE REASON FOR THE DRIFT TO ELECTRIC VEHICLE

By using indispensable energy medium the CO2 emigration of Petrol and Diesel vehicles are sluggishly canceled from our nature. We assumed that numerous further prediction will be made. That Eco-friendly vehicle where enthrall. The entire nation in the forth coming ages.

5. THE FIRST ELECTRIC ENGINE IN INDIA

The history of electric vehicles in India began in the 19th century, indeed before the REVA electric car came into the request. REVA was the primary electric car to make a big splash in the market. Before that, there were electric three- wheeler, electric motorcars and a small two-seater electric car that was launched before REVA, but was discontinued by the companies due to poor deals and too many specialized problems. India's first electrical vehicle was an electrical automotive named 'Lovebird'. The Lovebird was manufactured by Eddy Current Controls a company innovated by MD Jose and based in Chalakkudy, Kerala. It was a cute little two-seater car that was very popular among car enthusiasts of the time. It had a DC motor and a four- speed gearbox.

6. POSTULATES

6.1. Better Energy Efficiency

Internal Combustion machines will consume energy indeed when the vehicle is stationary, whereas in electrical vehicles, the energy isn't consumed when it's stationary.

6.2. Mechanical Advantages

They can be finely controlled and give high necklace from rest, unlike internal combustion machines, and don't need multiple gears to match power angles. Hence it removes the demand for gearboxes and necklace transformers.

6.3. Reduce dependence on petroleum

The relinquishment to electric machine will reduce the operation of petroleum and whereby reduces the dependence on petroleum.

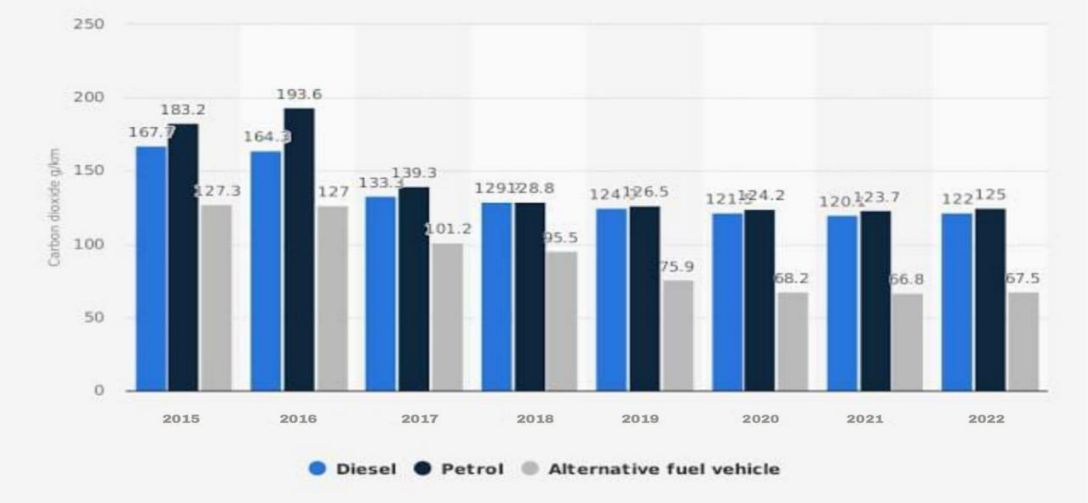
6.4. Reduce health goods from air pollution

The electric vehicle are co-friendly and therefore reduces health goods from air pollution.

7. OBSTACLES

7.1. Poor structure and Range Anxiety

Poor Structure is among the most burning issue among people allowing to conclude for electric vehicles. Poor base doesn't only include a scarcity of charging stations but also the need of proper charging set up in their home.



7.2. EVS cost and Battery Cost

It's no more retired from anyone that the Li-ion battery in electric vehicles is erected to last 6-7 times or hardly 8 times and after the battery decay period of an electric vehicle battery its stoner remains with no other choice than to buy a newer battery which costs nearly 3/ 4th of the whole vehicle cost.

7.3. Will increase the electricity demand at a public position

It'll be a terrible proliferation in the demand for electricity and as of now, we're majorly dependent on burning funds for generating electricity. Till we tend to use renewable sources of energy for generating electricity the energy unit revolution are of no use.

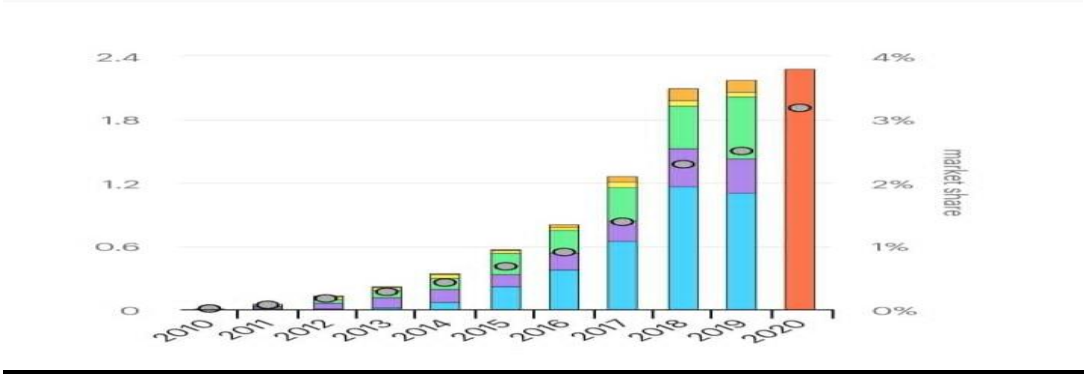
8. HOW TO OVERCOME OBSTACLES

- ✓ Improving the battery production process
- ✓ Building charging infrastructure
- ✓ Increasing consumer demand

9. PRODUCTION OF ELECTRIC VEHICLE

There is a comparative analysis made about the Electric Vehicle usage in 10 Countries. China produces more electric vehicles and sales to the users in a huge way. Then, next to China is USA nearly 65% of people where using Electric Vehicle in America. India and Russia where equally selling Electric Vehicle nearly to 40% upto 2020. We expect 65% in the year 2023 end. Other countries where sold very less Electric Vehicle when compared with other countries.

10. SALES TREND OF ELECTRIC VEHICLE



In the year 2019 Electric Vehicle sales in India reached 3.5% in the total Automobile vehicle sales. In the year 2020 4.3% . We anticipated the unborn growth to reach 7.5% in 2023.

11. RECENT DEVELOPMENT IN AUTOMOBILE INDUSTRIES

11.1. **INDEPENDENT VEHICLES-** self-driving or independent vehicles minimize the need for mortal motorists and look poised to transfigure everyday transportation lines of AVs expand the compass of last- afar deliveries, reduce time-out, and aim to make public transportation fairly safer. For illustration, by reducing accidents caused due to motorist fatigue or negligence. AVs are equipped with advanced recognition technologies, similar to AI-enhanced computer vision to identify obstacles along the route.

11.2. **ELECTRIFICATION-** The depleting reactionary energy reserves and the detriment to the terrain caused by their use call for promoting the use of electric mobility results. For lesser relinquishment, EVs need to address issues similar to high price, poor battery, shy charging structure, line electrification, as well as powering renewable energy-grounded charging grids. These challenges, along with the need to attack adding hothouse gas emigrations across the world, startups are working on electrification results.

11.3. **ARTIFICIAL INTELLIGENCE**- Artificial intelligence technologies such as machine learning, deep learning, and computer vision find operations in robotic automation within the automotive industry. These companion self- driving buses, manage lines, help motorists to ameliorate safety, and ameliorate services similar to vehicle examination or insurance. AI also finds operations in automotive manufacturing, where it accelerates the rate of product and reduces costs.

12. POSITIONING OF ELECTRIC VEHICLES

12.1. **Yearly Energy Consumption**- Given the rising petrol and diesel costs, consumers are now looking at buying electric buses for unborn use. This won't only reduce their yearly energy costs but will also go a long way in reducing their overall carbon footmark. This is one of the biggest advantages of using electric buses.

12.2. **Peace of Mind**-One doesn't ought to trouble concerning low fuel volume once happening a drive. With EVs you recognize the set drive range of the car and may drive tension-free till that point. With free charging of the car, one doesn't ought to stress concerning paying hefty fuel costs at the pumps.

12.3. **Beforehand Adopter-** The Indian government has set a thing of reaching 100-line electrification by 2030. This has created an instigation for the brisk and beforehand relinquishment of EVs in India. About,500 electric buses now run on Indian roads, which is a growth of 350- 450 in recent times.

12.4. **Saving Environment**- Rising pollution, especially in civic metropolises has led governments all over the world to support the relinquishment of electric buses. EVs appear to be the only result to check tailpipe emigrations in India. According to the International Council for Clean Transportation, an estimated 74,000 deaths passed due to air pollution from transportation tailpipe emigrations in India in 2015. This number is anticipated to rise with an added number of buses in India.

13. THE PRESENT STATUS EV'S IN INDIA 2022

- India is seeing rapid growth in sales of Electric Vehicles (EVs) as consumers rush to switch from gasoline-powered vehicles due to the rising cost of fuel.
- EV sales in India tripled in 2021 to 14,800 units and are still showing signs of growth.
- For February 2022, the country saw electric passenger vehicles sales grow 296 per cent to 2,352 units, according to the Federation of Automobile Dealers Associations (FADA) report.
- Apart from the high petrol prices, EV sales have also been affected due to increasing government sops, growing awareness in urban locations over the past few months.

14. Market Players in India:

Few players are there in the market who has launched their EV in the market, however, XEVs (EV/HEV and PHEV) are available but at a very high price.

14.1 EV

- Mahindra Reva – e2o – 4.99 lakhs
- EVerito – INR 9.22 lakhs

14.2 HYBRID

- BMW i8 – INR 2.62 Cr.
- Lexus ES 300h – INR 55.27 lakhs
- Toyota Prius – INR 45.23 lakhs
- Honda Accord Hybrid – INR 37.35 lakhs
- Toyota Camry – INR 37.22 lakhs
- Maruti Suzuki Ciaz Diesel – INR 8.23 lakhs (recently launched in 2017)
- Maruti Suzuki Ertiga Diesel – INR 7.55 lakhs (recently launched in 2017)

15. FUTURE EVs IN INDIA 2030

The future of electric vehicles looks veritably promising numerous countries are beginning to phase out the use of fossil energies and are encouraging the use of electric vehicles. In addition, advances in battery technology are allowing electric vehicles to travel further before demanding to be recharged. Likewise, the charging structure is getting wider, making electric vehicles more accessible and accessible for consumers. Eventually, governments are also offering impulses and subventions to encourage the relinquishment of electric vehicles. All of these factors point to a bright future for electric vehicles.

16. CONCLUSION

A few recommendations that can improve India's chances of realising EV sales projections by 2030 -coordinated efforts across state policies and relevant government departments, and better alignment with national targets; focusing on 100% electrification of government-owned and aggregator fleets; introducing mandates for EVs, especially for government vehicles and three wheelers in select cities; offering financial solutions to OEMs, battery manufacturers and consumers; and defining clear targets in state policies for charging infrastructure.

REFERENCES

1. https://en.wikipedia.org/wiki/Mahindra_Electric
2. https://images.app.goo.gl/1vHA6Ldv78mSdEjx9
3. https://www.statista.com/statistics/608392/automobile-industry-domestic-sales-trends-india/
4. https://www.ibef.org/industry/india-automobiles
5. https://linchpinseo.com/automotive-industry-trends