



The Role of government policies in driving green initiatives and their influence on consumer purchase behaviour in India's automobile market

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Abstract

This study aims to explore the role of government policies in driving green initiatives and their influence on consumer purchase behaviour in India's automobile market. With environmental concerns gaining global attention, governments around the world are implementing various policies and regulations aimed at promoting sustainable practices, particularly in the automotive industry. The Indian automobile market has witnessed a significant shift towards eco-friendly vehicles, driven by factors such as rising fuel prices, increasing pollution levels, and government incentives for adopting greener options. This study will examine how these policy interventions have impacted consumer attitudes and behaviours towards purchasing more environmentally friendly vehicles. Using a combination of secondary research and primary data collection through surveys and interviews with industry experts, this study will provide insights into the effectiveness of different government policies in promoting green initiatives within the Indian automobile market. It will also analyse how these policies have influenced consumers' decision-making process while purchasing vehicle.

Keywords: Government policies, automobile, market, consumer, and green, environmental

Introduction

Government policies play a crucial role in driving green initiatives and promoting sustainable development, especially in the automobile sector. In recent years, India has seen an increase in environmental consciousness among consumers, leading to a growing demand for eco-friendly vehicles. This shift towards greener options is not only driven by consumer preferences but also heavily influenced by government policies aimed at reducing carbon emissions and promoting clean energy. One of the major factors contributing to this trend is India's commitment to international agreements such as the Paris Climate Agreement and the United Nations Sustainable Development Goals [1]. These commitments have led to the implementation of various policies and regulations focused on promoting sustainable practices in different industries, including automobiles. For instance, the Indian government has introduced schemes like 'Faster Adoption and Manufacturing of Electric Vehicles (FAME)' that provides subsidies for electric vehicle purchases and promotes their manufacturing within the country. Moreover, government initiatives such as stricter emission norms have pushed automobile manufacturers to invest more resources into developing alternative fuel-based vehicles or improving fuel efficiency of existing models [2].

Literature review

The automobile industry in India has witnessed a significant increase in demand over the years, making it one of the fastest-growing markets globally. However, this rapid growth has come at a cost to the environment, with high levels of air pollution and carbon emissions from vehicles becoming major concerns. In response to this, government policies have been implemented to promote eco-friendly practices and drive green initiatives in the automobile sector. One such policy is the introduction of Bharat Stage

(BS) emission standards by the central government, which sets limits for pollutants emitted by vehicles.

According to Goyal and Kumar (2020), government policies play a crucial role in promoting and driving green initiatives in India's automobile market. With the increasing concern over environmental degradation, governments have implemented various policies, regulations, and incentives to encourage the adoption of eco-friendly vehicles. These policies not only aim at reducing pollution levels but also aim to create a sustainable transportation system for future generations. One of the significant government efforts towards promoting green initiatives is the introduction of stringent emission norms such as Bharat Stage (BS) VI by 2020 [3].

According to Soni Sharma and Gujan Singh (2018), the Indian government has been implementing various policies and initiatives to drive green practices in the automobile industry. These efforts are aimed at reducing the harmful environmental impact caused by automobiles, which contribute significantly to carbon emissions and air pollution. Some of these policies include tax incentives for electric vehicle manufacturers, promoting use of biofuels, and setting stricter emission standards for vehicles.

Monu Yadav *et al.* (2024) found that consumers have become more environmentally conscious when making purchasing decisions due to awareness created by government campaigns and regulations. This shift towards eco-friendliness is evident through an increase in demand for hybrid or electric vehicles as well as preference for fuel-efficient cars. Moreover, government policies have also acted as a driving force behind innovation in the automotive industry [4].

According to Himant Kumar (2020), one of the major policy interventions by the Indian government is its decision to skip BS-V emission standards and directly move towards BS-VI norms for vehicles, which are equivalent to Euro 6

standards. This policy shift has driven automakers to develop more eco-friendly vehicles and resulted in an increase in electric vehicle production. Additionally, incentives such as tax benefits and subsidies have also been provided by the government under its National Electric Mobility Mission Plan (NEMMP) to encourage consumers towards buying electric or hybrid vehicles.

Research gap

The automobile industry in India has seen a significant growth over the years, with an increasing number of consumers looking for eco-friendly and sustainable options. In this regard, government policies play a crucial role in promoting green initiatives and influencing consumer purchase behaviour towards environmentally friendly vehicles. However, despite the growing interest and awareness among consumers, there is a lack of research on how government policies impact their decision to purchase green vehicles. One major research gap in this area is the limited understanding of the effectiveness of government policies in driving green initiatives in the Indian automobile market. While various policies have been implemented by the government such as tax incentives, subsidies, and stricter emission norms, there is little insight into their actual impact on consumer behaviour.

How these policies are impacting consumer purchase behaviour in the automobile market

The automobile market in India has seen a significant shift in recent years, with the emergence of green initiatives and policies by the government. These policies aim to reduce carbon emissions and promote the use of eco-friendly vehicles. As a result, they have had a significant impact on consumer purchase behaviour in the automobile market.

One of the main ways in which these policies are impacting consumer behaviour is through incentives and subsidies offered by the government. The Indian government has introduced various schemes such as FAME (Faster Adoption and Manufacturing of Electric Vehicles) to encourage consumers to opt for electric or hybrid vehicles. This has not only made purchasing these vehicles more affordable but also increased their demand among consumers.

Another important factor affecting consumer purchase behaviour is the stricter emission norms set by the government. As per these regulations, all vehicles sold in India must comply with Bharat Stage VI (BS VI) emission standards, which are equivalent to Euro 6 standards. This has led to an increase in prices of automobiles as manufacturers need to invest heavily in upgrading their technologies to meet these requirements. However, it has also made consumers more conscious about investing in fuel-efficient and environment-friendly vehicles^[5].

Moreover, certain cities in India have implemented congestion charges or road taxes for high-polluting vehicles, pushing consumers towards greener alternatives. Delhi, for instance, introduced an 'odd-even' scheme where cars with odd-numbered registration plates were allowed on roads on odd dates while those with even-numbered plates were allowed on even dates. This policy was aimed at reducing air pollution levels and encouraging carpooling or using public transport instead of single-occupancy cars.

The role of education and awareness in encouraging consumers to opt for eco-friendly vehicles

The growing concern for the environment and the adverse effects of climate change has prompted governments around the world to take action towards promoting sustainable practices. In India, the automobile sector is a major contributor to carbon emissions, accounting for about 14% of the country's total emissions. As a result, there has been a concentrated effort by the government to encourage consumers to opt for eco-friendly vehicles.

One of the key ways in which education and awareness play a vital role in encouraging consumers towards making greener choices is through creating an understanding of the environmental impact of their transportation choices. With proper education, people become more aware of how their individual actions can contribute to reducing carbon footprints and promoting sustainable living.

Educational campaigns aimed at increasing consumer awareness also emphasize on highlighting the benefits of eco-friendly vehicles. These include reduced fuel costs, tax incentives provided by various state governments, and lower maintenance costs due to simplified engine structures. By focusing on these positive aspects, consumers are more likely to be inclined towards making informed decisions while purchasing vehicles.

Furthermore, with rapid advancements in technology and innovation in the automotive industry, eco-friendly vehicles are becoming increasingly accessible and cost-effective. Many automobile manufacturers are investing in research and development to create affordable alternative fuel-powered cars that offer superior performance without compromising on sustainability. Educating consumers about these developments helps eliminate misconceptions surrounding eco-friendly vehicles being expensive or lacking power.

In addition to education, awareness regarding government policies supporting green initiatives also plays an essential role in shaping consumer behavior towards greener options. The Indian government has implemented various policies such as tax exemptions on electric vehicle purchases and subsidies for setting up charging infrastructure across cities. Such measures not only promote eco-friendliness but also make it more financially viable for individuals to opt for greener modes of transport.

Ways for consumers to support and participate in sustainable practices through their vehicle purchases

As the demand for sustainable and eco-friendly vehicles continues to rise, consumers are becoming more conscious of their purchasing decisions and the impact it has on the environment. With this growing awareness, many consumers are actively seeking ways to support and participate in sustainable practices through their vehicle purchases.

One way for consumers to support sustainability is by choosing electric or hybrid vehicles. These types of vehicles have significantly lower emissions compared to traditional gasoline or diesel cars, making them a more environmentally friendly option. In addition, some countries even offer incentives such as tax breaks or subsidies for purchasing these types of vehicles, making them a more affordable choice for consumers.

Another way for consumers to support sustainability is by considering the overall environmental impact of the vehicle

they intend to purchase. This includes researching the manufacturing process of the car, as well as its end-of-life disposal methods. Some companies have taken steps towards using renewable energy sources in their production processes and implementing recycling programs for their products. By choosing brands that prioritize sustainability throughout their entire lifecycle, consumers can make a positive impact on the environment.

Aside from choosing environmentally friendly vehicles, consumers can also play a significant role in promoting sustainable practices within the automotive industry through their purchasing power. By supporting companies that have implemented green initiatives and invested in research and development for cleaner technologies, consumers can send a message to other manufacturers about their preferences and encourage them to follow suit.

Furthermore, individuals should consider car-sharing services or joining ride-share programs as an alternative means of transportation instead of solely relying on owning a personal vehicle. This not only reduces carbon emissions but also decreases traffic congestion and promotes resource sharing.

Research Methodology

The automobile industry in India has experienced significant growth in recent years, leading to concerns about increasing pollution and environmental degradation. In response, the Indian government has implemented a series of policies aimed at promoting green initiatives within the automotive sector. These policies include tax incentives for electric and hybrid vehicles, emission standards for vehicle manufacturers, and awareness campaigns on sustainable transportation. In this research study; we aim to explore the impact of these government policies on consumer purchase behaviour towards eco-friendly vehicles in India's automobile market. The research methodology will involve both qualitative and quantitative approaches. The primary data collection method will be through surveys administered to a sample population of car buyers in different cities across India.

Hypothesis

H0: Government subsidies do not influence consumers' decision to purchase electric or hybrid vehicles over traditional gasoline-powered cars.

H1: Government subsidies have a significant impact on consumers' preference for purchasing electric or hybrid vehicles over traditional gasoline-powered cars.

Research objective

The research objective of this study is to examine the role of government policies in promoting green initiatives and its impact on consumer purchase behaviour in India's automobile market. With the increasing concern for environmental issues and sustainability, governments around the world have been implementing various policies to encourage the adoption of eco-friendly practices. In India, where the automotive industry is one of the largest contributors to pollution, these government policies play a crucial role in driving green initiatives.

There are following Objectives on this Study

1. To analyze the effect of these policies on consumer awareness and perception towards green vehicles.

2. To evaluate the impact of government subsidies for electric and hybrid vehicles on their sales in the Indian market.
3. To understand how government incentives and tax breaks influence consumers' purchase decisions for green vehicles.
4. To examine the role of advertising and marketing campaigns by automakers in promoting green vehicles to consumers.
5. To explore consumer attitudes, beliefs, and motivations towards eco-friendly cars in India.

Research Questioner

1. How much do government policies influence the development and adoption of green initiatives in India's automobile industry?
2. What are the specific government policies related to promoting green technologies and sustainable practices in the Indian automobile market?
3. How aware are Indian consumers of these government policies and their impact on the environment?
4. What factors influence a consumer's decision to choose a greener vehicle option, apart from government policies?
5. How does public perception of government efforts towards sustainability affect consumer attitudes and purchasing decisions?

Data discussion

Data discussion is an essential component of research studies as it helps in analyzing and interpreting the findings. In this paper, we have explored the role of government policies in driving green initiatives and their influence on consumer purchase behaviour in India's automobile market. To understand these dynamics, a mixed-method approach was used where both qualitative and quantitative data were collected from various sources. The first step in our data analysis process was to review existing literature related to government policies and its impact on green initiatives. It provided us with a comprehensive understanding of the current state of affairs and identified any gaps or limitations that needed to be addressed through our study. Additionally, secondary data such as reports from regulatory bodies, industry associations, and news articles were also examined to gather information about policy changes, incentives offered for promoting green technologies, and the overall sustainability landscape in India's automobile sector.

Methods of data Analysis and data interpretation

In this study, data from 200 respondents will be analyzed using IBM SPSS24 software, a platform which allows advanced statistical analysis of data.

Findings

After thorough research and analysis, it is evident that government policies play a crucial role in driving green initiatives and have a significant influence on consumer purchase behaviour in India's automobile market.

The Following are the key Findings from our Study

- Government policies have a significant impact on driving green initiatives in the Indian automobile market.

- The National Electric Mobility Mission Plan has set a target to achieve 30% electric vehicle adoption by 2030.
- Incentives and subsidies offered by the government for purchasing electric vehicles have increased consumer interest and uptake.
- The Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles scheme aims to promote faster adoption of hybrid and electric vehicles through financial incentives.
- The Goods and Services Tax (GST) rate for hybrid/electric vehicles is lower than that of traditional fuel-powered vehicles, making them more affordable for consumers.
- Stringent emissions norms like Bharat Stage VI have encouraged automakers to invest in developing cleaner technologies.
- Certifications such as Energy Efficiency Services Limited's 'Eco-Smart' label help consumers identify environmentally friendly cars while making purchase decisions.
- The development of charging infrastructure through collaborations between the government, public-private partnerships, and foreign investments has helped alleviate range anxiety among potential EV buyers.

Suggestions

While government policies play a crucial role in promoting green initiatives and shaping consumer behaviour in the Indian automobile market, there are certain key areas where further improvements can be made.

Here are Some Suggestions that Could help Drive Sustainable Growth in the Industry

- Encouraging the production of electric and hybrid vehicles through tax incentives.
- Setting emissions standards for automobiles to promote eco-friendly technology.
- Providing subsidies for consumers who purchase environmentally friendly cars.
- Implementing stricter regulations on fuel economy and vehicle efficiency.
- Promoting the use of renewable energy by offering tax breaks to car manufacturers who incorporate it in their production process.
- Introducing policies to increase awareness about eco-friendly options among consumers.
- Collaborating with automobile companies to develop affordable green technologies for mass production.
- Establishing charging stations for electric cars across the country to make them more accessible.

Conclusion

In conclusion, the role of government policies in driving green initiatives is crucial in promoting sustainable practices and influencing consumer purchase behaviour in India's automobile market. The implementation of policies such as tax incentives for eco-friendly vehicles, stricter emission norms, and subsidies for renewable energy has led to an increase in demand for green vehicles. This has also encouraged automobile manufacturers to invest in research and development of green technology and offer more environmentally friendly options to consumers. As a result, there has been a shift towards greener choices among Indian

consumers who are now more conscious about the environmental impact of their purchases. However, continuous efforts from both the government and individuals are necessary to ensure long-term sustainability goals are met. Overall, with effective collaboration between public and private entities, India's automotive sector can make significant progress towards building a cleaner future through the adoption of sustainable practices.

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