

Study on Consumption Preference of New Energy Vehicles

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Abstract. The sales volume and sales volume of new energy vehicles in the market reflect the public's use of new energy vehicles. According to the feedback and demand of different people, the purchase proportion of new energy vehicles and new energy vehicles is different. The impact on economic development and the impact on the purchasing economy. The psychological impact of people using new energy vehicles. Consumers' pursuit of new energy vehicle performance (breakthroughs in speed and road use quality. Changes in conventional engine power output and motor output. The psychological impact on the use of new energy vehicles. Consumers' pursuit of new energy vehicle performance. After-sales quality assurance and service, the impact of different age groups on new energy vehicles. And the impact on the economic development of the population and the purchasing population, different age groups have different demands for new energy vehicles. After-sales service has also improved with market changes, and more and more people are pursuing the purchase of new energy vehicles. China's new energy vehicle policy will have an impact on the price of cars and buyers.

Keywords: New energy vehicles, buying groups, influencing factors, after-sales service.

1. Introduction

New Energy Vehicles (NEVs) provide consumers with a new type of vehicle when they enter the market. The main advantage of new energy vehicles over fuel vehicles is that they are environmentally friendly. The difficulty of technology is higher than that of fuel vehicles (including resistance to cold, high temperature, and adaptation to different terrains). The high cost will directly affect the sales of new energy vehicles. Policies enacted by the state and sales strategies of manufacturers help consumers to reduce the financial burden. As the technology of new energy vehicles is not as mature as that of fuel vehicles. Many terrains and landscapes pose great challenges to new energy vehicles. The difference in climate between the north and south will have an impact on the performance of new energy vehicles. From alpine areas to plains, new energy vehicles need to have enough ability to resist. People of different ages pursue car performance differently. With the improvement of intelligence, it is convenient for many people to travel. It can also meet people's needs for car configuration. Car stability is always an important development. The stability of new energy vehicles is stronger than the stability of most fuel cars, which also meets the needs of most consumers.

The state has introduced a policy of strict requirements for after-sales service of car companies. It can better help consumers get quality service and reduce the cost of using the car after purchasing the car. Consumers buy new energy vehicles reference data will be based on the actual situation to study. Most of the car companies will improve the performance of the car and expand the space utilization. The emission problem has been improved according to global warming.

New energy vehicles reduce air pollution compared to fuel vehicles. Traveling can be more convenient. The increase in fuel prices will also bring a burden to consumers in the later stages of car use. New energy vehicles convert electricity into kinetic energy, greatly reducing the cost of later use of the car.

2. Literature Review

In 2023, the national new energy subsidy regression of 12,600 yuan, is the largest regression since 2021, a year's total regression of 22,000 yuan. 2022 national subsidy regression iterative battery raw

material price increases, most companies in the year successfully carried out a price increase [1]. Vehicle warranty policies reflect the commitment and confidence of the enterprise in the product, more conducive to persuading consumers to enhance their trust in the product [2]. New energy vehicle purchases and battery repurchases to support [3].

Compared with pure electric vehicles, plug-in hybrid products are less dependent on charging piles, so in the current situation where the development of supporting facilities is not perfect, plug-in hybrid products are more easily accepted by consumers. It is expected that plug-in hybrid vehicles will continue to occupy the market space of pure electric vehicles in the future [4]. Therefore, the need for aluminum alloy welded components in high and low-temperature service conditions can maintain good mechanical properties [5]. For the greening and economic considerations of new energy vehicles, priority should be given to cost-effective models to ensure that they are compatible with the requirements of the vehicle. At the same time, it is also necessary to take into account the situation of automobile users [6].

Usually, a car driving in a plain area does not need higher motor power, but if the car driving in the mud, mountains, and other areas, it needs higher motor power requirements, so give priority to considering the high-speed motor, to meet the needs of different terrain [7]. The consumption of new energy vehicles is constantly upgrading, which puts forward higher and finer requirements for after-sales maintenance services, and while doing a good job of routine maintenance projects, it is more necessary to innovate products and service models to continuously meet the increasingly differentiated customer needs, which is a relatively big problem in the current service [8].

New energy vehicle enterprises to achieve the sales market to open up territory, taking into account the consumer's car experience is the data feedback [9]. Multi-platform and multi-enterprise construction and sharing of maintenance service platforms, accelerate the implementation and standardization of the national level of the "new energy automobile after-sales service specification", but also to seize the focus point, and to effectively promote the establishment of standardized service content and process [10].

3. Study on Consumption Preference of New Energy Vehicles

3.1. Analysis of Consumers' Price Preference for New Energy Vehicles

Many consumers will focus on the cost-effective price when buying new energy vehicles, and the price will have a great impact on the new energy vehicle market. The core components of traditional fuel vehicles are engines and transmissions. When new energy vehicles were introduced, these core components were converted into batteries, motors, and electronic controls. However, the total value of the core components of new energy vehicles exceeds that of traditional fuel vehicles. This has led to the price of new energy vehicles becoming one of the obstacles for consumers to buy new energy vehicles in general.

Most domestic new energy vehicles will compete in the price range of 200,000 to 300,000 RMB. This price range is moderate and acceptable to most consumers. Most of the new energy vehicles under 100,000 RMB are pure electric compacts. This price is not very high for consumers, but the vehicle's configuration and daily needs will be limited. So it will not be accepted by most families. The market for new energy vehicles between 100,000 and 200,000 RMB has gradually opened up with the continuous accumulation of technology and research breakthroughs in new energy vehicles. The cars at the price of 200,000 to 300,000 are divided into two types: pure electric cars and plug-in hybrid cars. Different people can choose different types according to the actual situation. And most of the new energy cars priced in this range can have more choices.

As well as being able to get a lot of advanced features. So, it is trendy among people in this interval. New energy cars above 300,000 RMB will be chosen by a very small number of people because of their high price. In China, the purchase of new energy vehicles under 300,000 RMB before 1 January 2024 will be able to enjoy a reduction or exemption of vehicle purchase tax. New energy vehicles over 300,000 RMB will start paying vehicle purchase tax again.

3.2. Analysis of Consumer Demand for New Energy Vehicles in Different Regions

Consumer demand for new energy vehicles varies in different regions of China. Most people in the southern region will choose pure electric new energy vehicles. It can reduce the air pollution caused by fuel combustion. The climate is humid and warm all year round, so pure electric new energy vehicles are enough to satisfy the consumers in the south. The northern region will experience a cold climate. Therefore, pure electric new energy vehicles will be affected by the cold climate and the battery life will be shorter. Most consumers in the north will choose hybrid new energy vehicles. This can increase the range and also reduce the air pollution caused by fuel combustion. The terrain in the north and south is different. The south is dominated by hills and basins, while the north is dominated by mountains and plains. New energy vehicles need to be able to provide enough power to combat the different terrains. New energy cars are predominant in the South. They can meet most of the road driving. In the north, there are more new energy SUVs than in the south. Need to fight against different regions and different landscapes. So, in terms of comfort and performance, the North and south have different needs for new energy vehicles. People of different ages also have different choices for new energy vehicles. Nowadays almost all new energy vehicles are equipped with intelligence. Young people pay more attention to practicality and functionality. Older people will focus on comfort and functionality, so car manufacturers make different designs for different consumers. For young people, manufacturers will produce more intelligent equipment, and power constantly upgraded. The space of the car will be upgraded to make use of the higher value to meet the needs of young people. For older people, manufacturers will upgrade the seats in the car and add equipment that is beneficial to them—for example, seat massage, and entertainment screen.

3.3. Analysis of Consumers' Performance Preferences for New Energy Vehicles

The performance of new energy vehicles also determines the degree of sales in the market. New energy vehicles have a low cost of use. The price of a hundred kilometers for a new energy vehicle is about the price of a liter of fuel. Most new energy vehicles use single-speed gearboxes, which make them smoother to drive. This satisfies many people's pursuit of smoothness. The performance of the car is also determined by the number of drivers. Most cars have a single-drive engine, which can meet people's daily traveling needs. Some alpine areas, high mountain areas, and uneven road conditions will use double-driver or driver cars.

It can satisfy the consumers to meet the special road or special climate environment to pass better. Many people pursue adventure and extreme, so the reliability of new energy vehicles is also very important. Most consumers will choose a hybrid vehicle, which can have a longer range and can also use the energy provided by the engine. Consumers looking for speed will choose cars with a larger number of drivers. The fastest cars that can go from 0 to 100 kilometers per hour are now able to do so in less than two seconds. This is more than enough to satisfy the consumer's need for speed. Since the drive unit replaces the drive shaft to drive the car, so the general new energy vehicles speed up faster than fuel cars. There are assisted driving functions in some new energy vehicles. This also greatly improves the performance of new energy vehicles' use rate. In different environments, the computer can calculate the vehicle in different modes of passing and comfortable switching. Help consumers to drive the car in different situations to have better performance.

3.4. Analysis of Consumers' Preferences for After-sales Service of New Energy Vehicles

After consumers complete the purchase of new energy vehicles, after-sales service is also an essential condition. China's new energy vehicles have a long quality guarantee period. The quality guarantee period can enjoy free repair and replacement parts services, usually more than three years. Consumers are protected against problems that occur in the car in the short term. The manufacturer will provide free charger service after the purchase of new energy vehicles is completed. Provide consumers with information on charging stations. Charging can be slow due to technology. Many consumers have the will to choose to buy new energy vehicles based on the service area of the

motorway supporting charging stations and the installation of a free charger policy. Batteries are also a crucial core of new energy vehicles.

After-sales service provides a battery performance guarantee and battery capacity guarantee. Many consumers also attach great importance to after-sales maintenance. Will usually contact the manufacturer for maintenance. Manufacturers will provide maintenance and repair services in the promulgated policy. One of the most important after-sales services is the emergency rescue service. For consumers who encounter emergencies or sudden accidents, the after-sales service policy provides a 24-hour emergency hotline. Some vehicles are equipped with safety devices. If the safety device senses an emergency, it will automatically connect to the emergency rescue service. This can be a guarantee of safety, peace of mind, and convenience for consumers in the process of using new energy vehicles.

4. Conclusion

The replacement of fuel vehicles by new energy vehicles is more than just switching the form of power. People's lives continue to improve, and so does their need for cars. Consumers can choose the right product in the relative economy. Reducing exhaust emissions not only reduces the pollution of outdoor air for consumers but also reduces the cost of using a car. The state has enacted different policies in different regions and at different times. The price advantage will push the new energy industry to its peak. The support of technology can spread the scope of application of new energy vehicles. The development of different groups of people to have a better experience of new energy vehicles. The pursuit of performance, the pursuit of technology, the pursuit of comfort, and quality assurance, in these spaces continue to improve to meet consumer preferences.

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