

# Influence Mechanism of Sustainable Development of New Energy Vehicles Affecting Chengdu Consumers' Purchase Intention

Jianan Yao

North Bangkok University, Bangkok 10220, Thailand.

---

**Abstract:** Green purchasing behavior is of great significance to the realization of carbon reduction goals for the Chengdu area. This study uses new energy vehicles to explore the driving factors of green purchase through psychological perceived quality, product quality, product image, corporate image, and policy support, which are the main factors of green purchase. The behavior motivation indirectly affects green investment through behavior intention concerning the environmental effects. The three research objectives are; to analyze the influence of green innovation on consumers' brand selection, to explore economic factors of new energy vehicles and government policy factors affecting customers' behavior in the purchase intention, and to suggest the improvement of service and product quality based on the market demand.

**Keywords:** Sustainable Development; New Energy Vehicles; Purchase Intention

---

## 1. Introduction

Enterprises must do an excellent job in green innovation in technology. The study found that consumers pay more attention to the green environmental protection of new energy vehicles. Part of their desire to buy comes from their energy-saving and emission-reduction characteristics. Under the current declining government policy subsidies, this paper will analyze the factors that affect the behavior of new energy vehicle consumers and compare these factors. In the 21st century, when resources are increasingly scarce and the environment is seriously polluted, the emergence of new energy vehicles is undoubtedly the gospel of resources and the hope of humankind. However, there are still some problems in using new energy vehicles on a large scale, which need to be improved. At the technical level, they can move forward in the direction of environmental protection and green, and enterprises must do an excellent job in green innovation in technology. The study found that consumers pay more attention to the green environmental protection of new energy vehicles. Part of their desire to buy comes from their energy-saving and emission-reduction characteristics. Under the declining government policy subsidies, this paper will analyze the factors that affect consumer behavior toward new energy vehicles and compare these factors.

## 2. Theoretical Basis

### 2.1 Theoretical Significance and Value

In a theoretical sense, new energy vehicles belong to the latest trend of the automobile industry in long-term development in the future. China's emphasis on environmental protection will promote the popularization of new energy vehicles, which will also impact the economic development of Chengdu. New energy companies in Fujian Province are developing well, and Chengdu residents' acceptance of new energy vehicles can reflect the current Chinese cities' attention to new energy vehicles. There is a specific correlation between Chengdu residents' approval of new things and local, new energy vehicle sales. Through empirical analysis, this paper can better understand Chengdu's new energy vehicle purchase willingness.

### 2.2 Practical meaning and value

Since the introduction and development of new energy vehicles in my country, the new energy vehicle market has been in a trend of continuous expansion, and the Chinese government has played a large part in it. However, with the decline of my country's policy subsidies for the new energy vehicle industry in 2019, the production and sales of the new energy vehicle market declined in the same year. It is not difficult to see whether the growth of the new energy vehicle market is still too dependent on the role of the government. As for any industry, the right to speak should account for a particular proportion, which aligns with the industry's long-term development. Consumers' desire to buy has declined, and the government's macro-control has weakened, which means that manufacturers of new energy vehicles should step up and take responsibility for the market's expansion and the industry's stable development. The best way to do this is to study users. The ultimate goal of product design is to meet the needs of users to the greatest extent. Especially during the period of industry change, companies should pay more attention to users' opinions and real needs. Improve the product design direction by understanding the needs and planning the next development strategy and path. The research results of this paper can be used in corporate strategy setting, corporate marketing strategy design, corporate market positioning, corporate industry status, etc., through data and analysis to provide direction for companies and establish a consumer-centric corporate system.

### **3. Understanding the Influence Mechanism of Sustainable Development of New Energy Vehicles Affecting Chengdu Consumers' Purchase Intention**

#### **3.1 Technological Innovation Theory**

Peng; & Liu. (2005) <sup>[1]</sup> referred to a comprehensive and thorough discussion of technological innovation. It introduces the concept of innovation into the production system. It believes that technological innovation establishes a new production function, representing a unique combination of production factors and conditions. Only the discovery that conforms to the original system's fluctuation is considered a real innovation. In other words, it is only an innovation that changes the production method and creates a different model. Similarly, this theory continues to develop in my country. Chinese scholars believe that technological progress is an inevitable trend of social development. If an innovative enterprise wants to achieve innovation truly, it must have legal and proper procedures. In the process of innovation activities, we are still subject to government constraints.

#### **3.2 Consumer Preference Theory**

Lin: et al. (2014) <sup>[2]</sup> referred to the personalized preference that reflects the satisfaction level of consumers for different products and services and is a factor that affects market demand to a large extent. It is mainly determined by the influence of the social environment and customs at that time on the entire consumer group or a specific group. Fully understanding consumers' preferences in a particular market is the top priority for companies to enter and develop their market share.

#### **3.3 Government Support Theory**

Moreno: et al. (2017) <sup>[3]</sup> proposed that automotive consumer behavior is highly responsive to governmental policy incentives and regulations. Innovative policies could speed up new energy vehicle adoption. The result could lead to a transition to green manufacturing, competitive strength for the development in the market, long-term reduced costs of transportation, and a suitable environment for the automobile consumer.

### **4. The Conceptual Framework for the Research Study**

#### **4.1 Sustainable Development**

The concept of sustainable development can be interpreted in a few situations, and its core is an approach to developing awareness of a society's environmental, social and economic limitations. The focus of sustainable development is far broader than

just the environment, and it's also about ensuring a robust, healthy, and just society. This means meeting the diverse needs of people in existing and future communities, promoting personal wellbeing, social cohesion, and inclusion, and creating equal opportunity.

## **5. The Influence Mechanism of Sustainable Development of New Energy Vehicles Affecting Chengdu Consumers' Purchase Intention**

Makkonen; & Inkinen. (2018) <sup>[4]</sup> studied customer satisfaction theory as a fundamental theory in marketing, which mainly includes four elements: customer, cost, convenience, and communication. When an enterprise sells products, it directly faces customers and should establish its business operation model with customers as the core. Customers need to pay a specific cost when acquiring physical or mental goods. When designing products, enterprises should try their best to meet the convenience needs of customers, which is reflected in the convenience of access and the convenience of after-sales service. Communication means that when a company encounters customer problems, it should take the initiative to communicate with customers and find solutions.

## **6. Conclusion**

In the minds of consumers, the improvement of green technological innovation of enterprises is an important puzzle, which is on par with subsidies from government policies. New energy vehicles are still in the stage of development and promotion. If the government cuts off preferential policies for new energy vehicles and their consumers, emerging markets will be very unfavorable. In particular, new energy vehicles have not yet become popular but are more prevalent in first-tier cities. They will inevitably develop into second-and third-tier cities in future strategic planning. As a driving force that the government should provide, it should not only limit subsidies but also make efforts in publicity and promotion to contribute to a greener, greener, and more beautiful earth. New energy vehicles should pay more attention to improving their brands and product quality; the survey results show that consumers are more concerned about the battery and battery life of new energy vehicles. This is an essential point that consumers pay attention to.

## **References**

- [1] Peng Y. and Liu Q. (2005). Consumption, Imitation, Symbol, Symbol: Focus on Advertising Culture. *Journal of South-Central University for Nationalities (Humanities and Social Sciences Edition)*. Vol S1, p.265-267.
- [2] Lin H. et al. (2014). Can political capital drive corporate green innovation? Lessons from China. *Journal of Cleaner Production*. Vol 64, p.63-72.
- [3] Moreno M. et al. (2017). Re-distributed manufacturing to achieve a circular economy: A case study utilizing IDEF0 modeling. *Procedia CIRP*. Vol 63, p.686-691.
- [4] Makkonen T. and Inkinen T. (2018). Sectoral and technological systems of environmental innovation: The case of marine scrubber systems. *Journal of Cleaner Production*. Vol 200, p.110-121.