

# The Impact of Corporate Social Responsibility on Customer Satisfaction of Electric Vehicles in Changsha City, Hunan Province, China

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## Abstract

The evolution of science and technology makes it easy to check product quality. However, to satisfy customers, a tool can only do so. This article aimed to 1) study the factors that affect customer satisfaction; 2) study the relationships between influence factors and customer satisfaction; and 3) build a model of the relationship between corporate social responsibility and customer satisfaction in Chinese electric vehicle enterprises. This is a research mixed method. In the quantitative research, the sample was 405 electric vehicle customers in Changsha City, Hunan Province, China. They were selected by a straightforward method. A questionnaire that asked respondents for personal information and their views on corporate social responsibility, customer satisfaction, and corporate reputation value served as the data collection tool. The qualitative research method is in-depth interviews, mainly with seven experts: four managers from electric vehicle enterprises, one expert from the government's supervision department in Changsha City, Hunan Province, and two university professors. The instrument for collecting data was the depth of the discussion. Analysis of data by descriptive statistics and content analysis. The research results were found as follows:

1. Corporate social responsibility positively impacts corporate reputation, customer perceived value, and customer satisfaction.
2. Corporate social responsibility contributes positively to consumer satisfaction through the intermediary variables of corporate reputation and customer perceived value. It is concluded that corporate social responsibility contributes positively to consumer satisfaction through the intermediary variables of corporate reputation and customer-perceived value
3. A new model has been established to improve customer satisfaction through corporate social responsibility implementation.

**Keywords:** Corporate social responsibility; Customer satisfaction; Corporate reputation; Customer perceived value; Electrical Vehicle

## Introduction

Since the 21st century, the rapid development of science and technology has created more convenient conditions for people to obtain information, and it is easier to obtain product

information with better quality or lower prices on a global scale. At the same time, the problem of companies not taking corporate social responsibility seriously has reached unprecedented heights. For example, the Samsung mobile phone battery explosion incident and corporate failures like Facebook's disclosure of user privacy are shocking. In automobile manufacturing, there have also been car recalls due to product quality problems, and electrical vehicle battery fires have caused harm to the lives and safety of passengers. These corporate failures reflect that when enterprises attach too much importance to realizing economic goals, there will be irreconcilable contradictions between corporate and social interests. The negative consequences brought by these contradictions will have a substantial negative impact on enterprises and society. Therefore, there is an urgent need to improve the relationship between business and society. In this context, corporate social responsibility has gradually entered people's vision and become one of the hot topics. With the continuous combination of stakeholder theory and corporate social responsibility research, some scholars have begun to conduct practical research on corporate social responsibility from the stakeholders' perspective. Scholars have focused on the relationship between corporate social responsibility and corporate value in past research. However, although scholars have made more efforts, there has yet to be a consensus on the relationship between corporate social responsibility and corporate value. Positive scholars believe that demonstrating social responsibility can better fulfill an enterprise, and its risk control can be avoided; assuming good social responsibility can improve the image and reputation of an enterprise, improve consumer recognition, and effectively improve employees' work attitudes.

Maximizing economic benefits is the ultimate goal of enterprises and shareholders. There needs to be a uniform research conclusion on whether companies can get a corresponding return on investment by investing extra costs to fulfill their responsibilities to other stakeholders. With the rapid development of the economy and science and technology, the competition between enterprises is becoming increasingly fierce, and the era of relying solely on products and services to maintain the leading position of enterprises has passed. The focus of contemporary marketing theory is how to meet people's consumption needs to the greatest extent, including the demand for products and services and the psychological needs of consumption. In this process, corporate social responsibility has played an immeasurable role and rapidly developed and spread. In terms of short-term economic benefits, fulfilling social responsibility does increase the cost of enterprises and reduce profits, but in terms of long-term economic goals, fulfilling corporate social responsibility can enhance the reputation of enterprises and consumers' perceived quality of products and enhance the brand value and perceived value of enterprises. In turn, it improves consumers' satisfaction with enterprise products and the core competitiveness of enterprises themselves.

Previous studies mainly focused on the impact of corporate social responsibility on corporate performance, consumer purchasing behavior, and brand value. However, there needs to be more research on how to improve consumer satisfaction. By introducing two intermediary variables, corporate reputation, and perceived value, this paper empirically analyzes the direct and indirect impact of corporate social responsibility on consumer satisfaction, helps electric vehicle enterprises recognize the factors affecting consumer satisfaction, and guides them to focus on the issues that consumers pay attention to.

This research paper presents the study of factors including electrical vehicle enterprises, corporate social responsibility, and customer satisfaction. It hopes to provide practical policy guidance to help electric vehicle manufacturers gain popularity in the eyes of consumers.

## Research Objectives

1. To study the factors that affect customer satisfaction.
2. To study the relationships of influence factors and customer satisfaction.
3. To build a relationship model between corporate social responsibility and customer satisfaction in Chinese electric vehicle enterprises.

## Literature Review

### Corporate Social Responsibility Theory

The CSR practice in this study includes the research contents, such as how the concept of CSR is combined with corporate culture, the manifestation form of CSR, and the supervision mechanism of CSR. Enterprises' investments to assume responsibility for a stakeholder group all fall within the category defined in this study. In addition, it must be made clear that CSR investment is not an asset reserve expressly set by enterprises to undertake social responsibility. R&D investment and supply chain management investment are only embodied CSR investments.

Lantos believed that the CSR model should include ethical responsibility, strategic responsibility, and public welfare responsibility (Porter & Kramer, 2006). Zhang (2013) pointed out that social responsibility includes inescapable legal obligations and the ethical responsibility of free decision. Jin (2006) proposed a measurement standard system in five aspects, including employee rights and interests, social responsibility, human rights foundation, business ethics, and social charity, which can be divided into 13 small parts and stipulated 38 three-level standards. Sun Hongmei put forward the corporate social responsibility accounting system, which includes six aspects such as economic responsibility, ecological protection, employee rights and interests, regional obligation, stakeholder responsibility, and social charity behavior, and evaluates whether enterprises fulfill their social responsibility and its degree based on accounting statistics (Sun and Wang, 2013).

From the previous research, the controversy in the early stages of CSR research focused on whether enterprises should fulfill social responsibility. With the continuous development of relevant theories and the accumulation of practical experience, more and more scholars and entrepreneurs have accepted the view that enterprises should undertake social responsibility.

### Stakeholders Research

Stakeholder theory is a fundamental theory for discussing corporate social responsibility. Its development, invented by supporters of corporate social responsibility, has a relatively profound theoretical background. There are two main theoretical bases for stakeholder research: one is the theory of property rights, and the other is the theory of contract. Zhang (2009) continued the Coase property rights theory analysis mode and arranged the structure of private property rights. He proposed that property rights, as a power collection, included the right to use, income, and transfer. At the same time, she believed that property rights could be divided. Freeman (2010) defines enterprise stakeholders as "all individuals and groups that can influence the implementation of enterprise planning or will be affected by the process of enterprise planning and implementation." Enterprises need to study strategic management because of the highly complex relationships between stakeholders. Incomplete contract theory points out that the real economy is full of uncertainties, and people cannot only predict some of the future events but clearly define the responsibilities and rights of the parties to the transaction under various possible circumstances in the contract. Therefore, the key lies in the setting of pre-allocated power and systems. They first introduced social attributes in defining stakeholders. He believes there is a complex social relationship between stakeholders and enterprises, and these stakeholders are social. However,

other stakeholders do not have a direct relationship with the enterprise. They can only have a relationship with the enterprise through "non-human" factors, so these stakeholders are not social.

The research results of stakeholder theory are of great significance to promoting corporate social responsibility research. First, the stakeholder theory elaborates on the object of corporate social responsibility. Before introducing stakeholder theory, people needed to learn how to answer the question to whom enterprises should assume social responsibility. Many scholars then proposed that enterprises should be responsible for society. However, the concept of society is very general, and enterprises need to know what society is responsible for. This problem could make it more favorable for enterprises to undertake social responsibility. It was only with the introduction of stakeholder theory that this problem was solved. Enterprises are not responsible for an abstract society but for clearly defined corporate stakeholders. Secondly, stakeholder theory also makes the content of social responsibility clear. The specific content of corporate social responsibility is to meet the interests and demands of various stakeholders. At the same time, stakeholder theory clarifies the scope of social responsibility. The scope is mainly determined by the choice of enterprise stakeholders, which includes the enterprise's choice of stakeholders' interest demands and the balance of the degree of interest realization. Finally, stakeholder theory also provides a scientific method to measure corporate social responsibility. Enterprise stakeholders identified from the system theory research framework; measurement dimension is a transparent object; ratings are project-specific social responsibility content; grading is the situation of the actual performance; this kind of measurement method is not only easy to operate; and science is very rigorous, compared to the original social responsibility progress measurement method, which is enormous.

### **Theory of Customer Satisfaction**

Customer satisfaction is a psychological concept of the customer experience. The comparison between customer expectations and experience will make customers satisfied. Therefore, customer satisfaction is a cognitive evaluation process that compares customers' expected and perceived performance. Suppose the user's psychological feelings are better than expected after using the product. In that case, the customer will have the psychology of satisfaction; on the contrary, there will be the emotion of dissatisfaction. So-called satisfaction is the customer's satisfaction with the products or services they need. At present, the academic definition of customer satisfaction can be roughly divided into two kinds: one is based on experience, and the other is based on expected certainty.

Robert (2000) proposed that consumer satisfaction is a process of evaluation and cognition that compares consumers' expectations with actual product performance. Churchill (2010) analyzed customer satisfaction from the perspective of revenue and expense. He found the difference between the customer's income on services and products and the cost, energy, and time spent on purchasing services and products. Price, brand, service, and product quality are the reasons for the difference between consumers' expectations of products and their actual performance. Singh (2007), through social psychology and organizational theory, argues that the term "satisfaction" has multiple meanings and should be measured in multiple ways, noting that customer satisfaction measures will vary depending on the industry and who is surveyed. Phi and Huong (2023) investigate the reciprocal relationship between service quality, reputation, satisfaction, and loyalty in the banking sector. The scale of customer satisfaction used is classified as

1) repurchase, 2) deviation from expectations, and 3) comparison with competitors. Demirel, D. (2022) discussed the contribution of the customer-centric management system to customer relationship management and uses four dimensions to evaluate customer satisfaction, which are 1) expectations, 2) quality, 3) recommendations, and 4) repurchase.

Signs of satisfaction are excitement, satisfaction, and gratitude. A delighted state refers to the super-satisfied state of consumers after consumption. In this case, consumers' expectations are fully met, there are no complaints about the company and its products, and they are grateful to the company in their hearts. The division of these five levels is only relative because, although there are levels of consumer satisfaction, the boundaries are fuzzy, and there is no apparent basis for division from one level to another. The purpose of classifying consumer satisfaction levels is to help enterprises evaluate consumer satisfaction.

### **Corporate Reputation**

Corporate reputation is a vital asset in corporate activities. Such assets are intangible and imperceptible to people, unlike tangible assets. However, they always exist along with the development of enterprises and are reasonable feedback from enterprises to past events. Experts from various fields have valued and extensively studied its concept, which is present in management, marketing, economics, sociology, psychology, etc. Because of the different research fields, scholars have given different definitions. In other words, corporate reputation is also a promise to corporate investors. Corporate reputation is based on the daily behavior of the enterprise. As time goes by, the behavior of the enterprise will affect both internal and external stakeholders. Managers also need to constantly change the relevant behavior of the enterprise to win the public's recognition and develop the enterprise strategy in a direction beneficial to the enterprise's stakeholders. Improve the stakeholders' recognition of the enterprise, let investors see the enterprise's prospects to obtain much support to help the enterprise move forward, and slowly form an intangible asset, reputation.

According to Zheng and Wang (2004), corporate reputation is generated by the communication and behavior collisions of the public (consumers, investors, media, employees, and community). It is a comprehensive evaluation of it by the public. In modern enterprise management and operation, it is a unique resource and an indispensable part of the enterprise, which can invisibly enhance the competitiveness and value of the enterprise. Keh and Xie (2009), from the perspective of convention theory, corporate reputation is the public's evaluation of enterprises in secret. Guo (2012) verified through experiments that some domestic debt ratios, market conditions, enterprise size, and enterprise financial status are all related to corporate reputation, which can be significantly related to corporate reputation to a large extent. In addition, it also proves that "enterprise ownership" also plays a vital role in corporate reputation. Zhou Liping (2016) demonstrated the relationship and function among corporate reputation, social responsibility, and corporate financial performance in her research results. Various scholars have also researched the scale of corporate reputation development.

According to pertinent literature, both domestic and foreign academics have been researching the idea of corporate reputation for almost 40 years. Most scholars define corporate reputation from the perspective of enterprises' internal and external stakeholders and believe that corporate reputation is formed through a long-term accumulation process that fully reflects the influence of enterprises' behaviors and results during this period. Corporate reputation is a multidimensional variable and should be evaluated from different perspectives.

### **Theory of Customer Perceived Value**

Consumer perceived value refers to consumers' subjective evaluation of the utility and final income brought by the product or service after perceiving the potential benefits of the product or service, excluding the expenses paid in the consumption process. This process reflects consumers' specific value cognition of the product or service. Consumer-perceived value is produced in the value transfer process of goods or services. It is the result of consumers'

subjective cognition, which is different from the objective value of goods and services in the general sense.

Academic and business circles have long paid attention to consumer perceived value, which is a crucial concept in marketing. In all relationship exchange activities, consumer-perceived value is the critical construct and foundation (Wu and Chen, 2014). Holbrook (1999) argues that consumer-perceived value is "an interactive experience of relative preference." According to this view, consumer perceived value refers to the interaction between consumers and products or services, which is comparative, personal, situational, and specific. This definition also significantly contributes to studying the nature of consumer perceived value. Chi (2011) believes that creating value is the key to the long-term success of a business. The consumer perceived value model, which consists of monetary, quality, social, and emotional value, measures the consumer perceived value of the American leisure sportswear market. The results show that price has the most significant overall impact on CPV compared with social and emotional value, and quality value is also significant.

From the review of key literature, the research on the dimensional structure of consumer perceived price value is relatively wealthy in studying consumer perceived value. However, there still needs to be a significant gap in evaluating the importance of different dimensional values in the consumer's perceived structure or consumption process.

### Conceptual Framework

This research studies factors including electrical vehicle enterprises, corporate social responsibility, and customer satisfaction. The researcher defines the research conceptual framework based on CSR and customer satisfaction. The details are as follows:

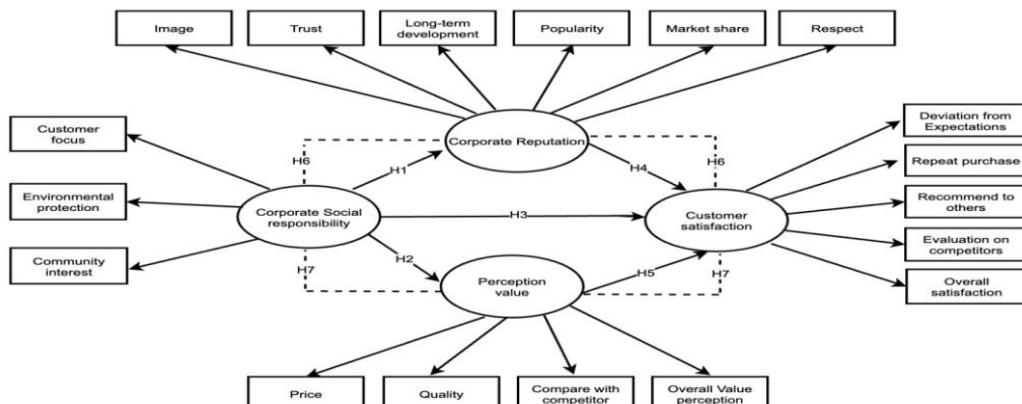


Fig. 1: Conceptual Framework

### Research Methodology

This study is a combined method of research. The research area is Changsha City, Hunan Province, China. The population is customers purchasing electric cars in Changsha City, Hunan Province, China. The exact number is unknown. The sample consisted of 405 customers purchasing an electric car in Changsha City, Hunan Province, China, using a simple selection method. There are two types of research tools: 1) a questionnaire, which consists of two parts: The personal data of respondents and their opinions on corporate social responsibility, corporate reputation, customer perceived value, and customer satisfaction were used to study electrical vehicle users' perceptions of the social responsibility of electric vehicle enterprises and their satisfaction with cars. 2) in-depth interviews are used to study the attributes and properties of data. They are used to describe and summarize the statistical methods of data

characteristics, usually used in the preliminary stage of data analysis and collected by the researcher. Quantitative data were taken between September 2022 and September 2023; measurements are mean, standard deviation, ambiguity, and peak value. Part 1 Descriptive Analysis and Statistics Descriptive analysis statistics are used to describe the attributes and properties of data and summarize the statistical methods of data characteristics, usually used in the preliminary data analysis stage. Descriptive analysis statistics generally reveal the essential characteristics of data by calculating indicators such as central tendency, degree of dispersion, and distribution shape. Central tendency: including the mean, median, and mode, used to describe the central tendency of the data. Dispersion degree, including variance, standard deviation range, etc., is used to describe the degree of dispersion of data. Distribution shape, including skewness and kurtosis, etc., is used to describe the morphological characteristics of the data distribution. Percentages, mean values, and standard deviations are used as measurements. In part 2, the statistical analysis of the relationship between variables, the person correlation coefficient measures a linear correlation. If  $r=0$ , we can only say that there is no linear correlation between  $x$  and  $y$ , and we cannot say that there is no correlation. The greater the absolute value of the correlation coefficient, the stronger the correlation: the closer the correlation coefficient is to 1 or -1, the stronger the correlation degree, and the closer the correlation coefficient is to 0, the weaker the correlation degree. It uses document research, analyzes and synthesizes data, and writes a descriptive narrative.

## Research Results

**Objective 1.** The results showed that corporate social responsibility positively impacts corporate reputation, customer perceived value, and customer satisfaction.

**Table 1.** The mean and standard deviation analysis of the opinion of all variables

Variables	Statistics	$\bar{x}$	S.D.	Comment level
<b>Corporate social responsibility</b>	3.704	0.701		Agree
1. Customer Focus	3.671	0.809		Agree
2. Environmental protection	3.685	0.941		Agree
3. Community interests	3.755	0.872		Agree
<b>Customer satisfaction</b>	3.652	0.960		Agree
Q22. Deviation from Expectations	3.748	1.044		Agree
Q23. Repeat purchase	3.570	1.125		Agree
Q24. Recommend to others	3.607	1.122		Agree
Q25. Evaluation on competitors	3.696	1.123		Agree
Q26. Overall satisfaction	3.637	1.138		Agree
<b>Corporate reputation</b>	3.420	0.952		Agree
Q12. Image	3.420	1.104		Agree

Variables	Statistics	$\bar{x}$	S.D.	Comment level
Q13. Trust		3.365	1.121	Agree
Q14. Long-term development		3.556	1.158	Agree
Q15. Popularity		3.454	1.131	Agree
Q16. Market share		3.417	1.135	Agree
Q17. Respect		3.306	1.194	Agree
<b>Perceived value</b>		3.454	0.974	Agree
Q18. Price		3.459	1.106	Agree
Q19. Quality		3.568	1.098	Agree
Q20. Compare with competitor		3.380	1.166	Agree
Q21. Overall Value Perception		3.407	1.202	Agree

The above table shows that the observed latent variable of corporate social responsibility is the highest average value of community interests ( $\bar{x} = 3.755$ , S.D. = 0.872). The latent variable of customer satisfaction has five observed variables, with the highest mean value ( $\bar{x} = 3.748$ , S.D. = 1.044). The highest mean value of the observed variable of corporate reputation latent variable is popularity ( $\bar{x} = 3.454$ , S.D. = 1.131). The highest mean value of an observed variable of perceived value latent variable is quality ( $\bar{x} = 3.568$ , S.D. = 1.098). To sum up, the degree of data dispersion is acceptable in all tables.

Objective 2. The results showed that corporate reputation and customer perceived value also positively impact customer satisfaction. It is concluded that corporate social responsibility contributes positively to consumer satisfaction through the intermediary variables of corporate reputation and customer perceived value.

**Table 2.**The mean and standard deviation analysis of the opinion of corporate social responsibility

Variables	Statistics	$\bar{x}$	S.D.	Comment level
<b>Customer Focus</b>				
Q1. Product safety and quality		3.407	0.920	Agree
Q2. Fairtrade to every customer		3.723	0.935	Agree
Q3. Effective complaint and feedback system		3.770	0.987	Agree
Q4. Green marketing		3.783	1.052	Agree
<b>Total</b>		3.671	0.809	Agree

Variables	Statistics	$\bar{x}$	S.D.	Comment level
<b>Environmental protection</b>				
Q5. Environmental products and services	3.872	1.092		Agree
Q6. Reduce emissions and promote a circular economy	3.607	1.118		Agree
Q7. Sustainable development	3.575	1.125		Agree
<b>Total</b>	<b>3.685</b>	<b>0.941</b>		
<b>Community interests</b>				
Q8. Donations to community	3.810	1.053		Agree
Q9. Care for the vulnerable	3.778	1.069		Agree
Q10. Provide employment opportunities	3.704	1.054		Agree
Q11. Support health and education program	3.728	1.044		Agree
<b>Total</b>	<b>3.755</b>	<b>0.872</b>		Agree

As can be seen from Table 2, the respondents agreed with the customer orientation in the evaluation of the fulfillment of social responsibilities of electrical automobile manufacturers ( $\bar{x} = 3.671$ , S.D. = 0.809), and respondents have the highest score on green marketing ( $\bar{x} = 3.783$ , S.D. = 1.052), indicating that consumers are satisfied with the marketing methods of electric vehicles. This was followed by an effective complaint and feedback system ( $\bar{x} = 3.77$ , S.D. = 0.987).

Objective 3. The results showed that a new model has been established to improve customer satisfaction through corporate social responsibility implementation.

As seen from Table 2, consumers are more concerned about the problems that occur during the subsequent use of a new automotive product. In this matter, the implementation of electrical vehicle manufacturers has reached a satisfactory degree. Consumers' recognition of the fulfillment of environmental protection responsibilities of electrical vehicle manufacturers is  $\bar{x} = 3.685$ , standard deviation = 0.941, among which the provision of environmental protection and green products and services is the highest evaluation because electric vehicles reduce pollution and waste emissions are conducive to air purification, and have a low resource consumption rate, which consumers recognize. Secondly, the mean value of the circular economy scores for reducing exhaust emissions is 3.607, and the standard deviation is 1.118, indicating that consumers recognize the environmental performance of electric vehicles and understand the environmental functions and indicators.

## Discussions

This paper examines the impact of customer-perceived corporate social responsibility on customer satisfaction. We discuss three main findings.

First, between customers' perceived fulfillment of social responsibility and consumer satisfaction, the result is consistent with previous research findings by Shen (2012) and Wei (2009). This result accords with the claim of stakeholder theory. According to stakeholder

theory, customers are the key stakeholders, and the upstream and downstream suppliers in the industry should be responsible for customers. Therefore, companies recognize that corporate social activities influence customer evaluation and purchasing behavior. This recognition can enable the affiliated companies in the industry to improve their social image in the eyes of consumers by effectively fulfilling their social responsibilities and correcting the impact of destructive behaviors on society and the environment. On the other hand, stakeholders are likely to respond to the company's social behavior, which makes companies reluctant to do actions that damage the corporate image because they will be quickly condemned. A relationship between stakeholders and the company can evoke a sense of identity.

Second, the results show a significant positive correlation between corporate social responsibility and reputation. This is also consistent with the findings of Arikant and Kantur (2016). According to signal theory, effective fulfillment of social responsibility is a positive signal of social responsibility sent by enterprises to consumers, which establishes a positive corporate image in the minds of consumers and enhances the reputation of enterprises. There is also a significant positive correlation between customer satisfaction and corporate reputation. This result is consistent with the findings of Walsh & Mitchell (2009) and Loureiro & Kastenholz (2011). Previous studies have found that corporate reputation can enhance customer satisfaction, and corporate reputation plays an intermediary role between corporate social responsibility and customer satisfaction. Previous studies have demonstrated this mediating role of corporate reputation in other industries, but this study is the first to demonstrate this relationship in the electric vehicle industry. This study shows that investing in corporate social responsibility in the automotive industry can increase consumer satisfaction and build a good corporate reputation among customers and other stakeholders.

Third, the results show a significant positive correlation between corporate social responsibility and customer-perceived value. Corporate social responsibility helps to improve consumers' perception of increased advantages and reduced disadvantages (Hansen et al., 2008). When corporate social responsibility is fully fulfilled, customers will believe that the company's products and services have high value, especially in the service industry. When customers cannot objectively evaluate quality and other intrinsic attributes, they must use other cues and signals to establish perceptions and make decisions (Mohammed, 2009). This paper proves the positive correlation between corporate social responsibility and perceived value in the automobile manufacturing industry. There is also a positive correlation between customer perceived value and customer satisfaction. Previous studies have found that corporate reputation can enhance customer satisfaction, and perceived value is an intermediary between corporate social responsibility and customer satisfaction. This study once again proves this intermediary role in the electric vehicle industry, which can enhance the influence of corporate social responsibility on customer satisfaction through corporate reputation and perceived value.

Together, this research expands our knowledge of customer satisfaction with electric vehicles. These findings are essential because CSR affects corporate reputation, customer perceived value, and ultimately, directly and indirectly, consumer satisfaction. This demonstrates the need to take a multidimensional approach to consumer satisfaction analysis.

## **Knowledge from Research**

This paper constructs a new analysis model by introducing essential factors, including corporate reputation and perceived value, to explain better the relationship between corporate social responsibility and consumer satisfaction.

2. Corporate reputation and customer perceived value: The relationship between corporate social responsibility and consumer satisfaction has expanded. The most crucial purpose of enterprises in fulfilling social responsibility is to make products recognized by consumers and

realize the improvement of corporate value. Improving enterprise value provides an economic guarantee for enterprises to continuously fulfill their corporate social responsibility, a virtuous cycle process. From the single relationship between corporate social responsibility and consumer satisfaction, many studies have proved that corporate social responsibility impacts consumer satisfaction, and the intensity of the impact varies. In particular, what other factors can indirectly strengthen or weaken the relationship between CSR and consumer satisfaction through the implementation of CSR is worth further discussion. According to the research results, it is finally determined that corporate reputation and customer perceived value can be affected by corporate social responsibility, and these effects can be passed on to consumer satisfaction, and finally strengthen the relationship between the two.

3. In this paper, the structural equation model method and questionnaire survey method are used to investigate consumers' perception of social responsibility fulfillment and consumer satisfaction of electric vehicle enterprises, and the factors affecting consumer satisfaction of electric vehicle enterprises in China are analyzed. The research results show that the model is transparent, simple to operate, and easy to understand, and the conclusion can reflect the relationship between corporate social responsibility of electric vehicles and consumer satisfaction.

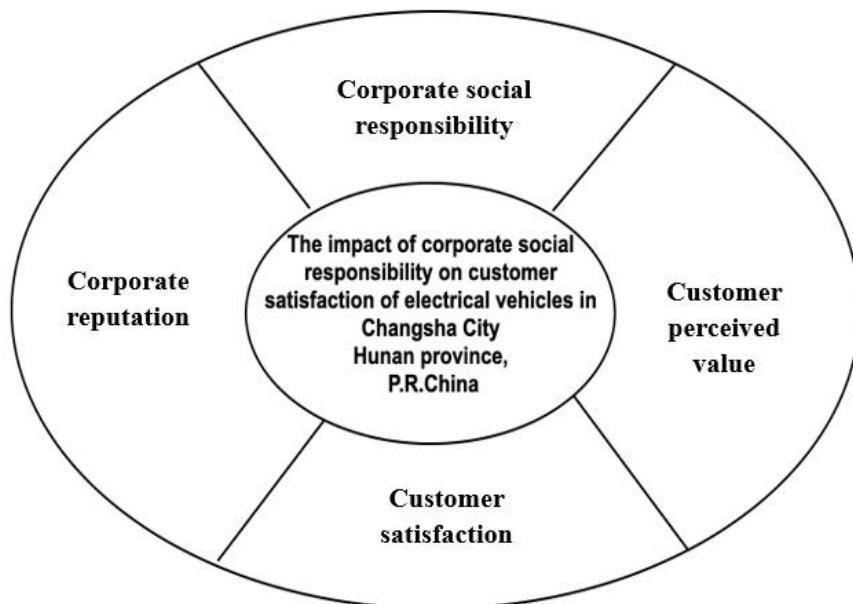


Fig.2 Model Method

## Conclusion

1. Corporate Social Responsibility is divided into customer concern, environmental protection, and community benefits according to the nature of the electric vehicle industry. Including the relationship between customer concerns. Environmental protection community interest and consumer satisfaction It shows that corporate social responsibility has a positive effect on the reputation of the organization. Value perceived by customers and customer satisfaction

2. Corporate social responsibility contributes to consumer satisfaction. Customer satisfaction can build a reputation for the organization from the value that customers perceive.

3. New models that influence consumer satisfaction Electric vehicle manufacturers should manage their social responsibility system and fulfill their social responsibility from the dimension of customer concern. Environmental protection and community benefits ultimately affect consumer satisfaction through corporate reputation management and

## Suggestions

In the enterprise development process, corporate social responsibility plays a vital role in stabilizing the progress of enterprise economic development and coordinating the relationship between enterprises and social parties. Enterprises are an essential part of society, shoulder the corresponding responsibilities of a member, and get the attention and support of various stakeholders to improve customer satisfaction. Only when enterprises are trustworthy will all parties in society give enterprises more development opportunities. Only by assuming the social responsibilities of various stakeholders can electric vehicle manufacturers enhance their reputation, brand value, and consumer satisfaction. Through literature analysis and a questionnaire survey, this paper identifies the relationship between the perceived fulfillment of corporate social responsibility of electric vehicles and the degree of consumer satisfaction, conducts empirical research with a structural equation model, and comes up with the following suggestions.

1. Establish corporate image and strengthen corporate brand. Corporate image is an integral part of corporate culture, and establishing a responsible corporate image can improve the public's recognition and favorability of the enterprise. To enhance the corporate image, we must first ensure consumers can favor quality and high-quality products. Corporate brand is an essential embodiment of corporate culture, with strong influence and appeal. Through brand activities and marketing, enterprises can make society better understand the enterprise, improve its visibility and influence, and strengthen its social responsibility. First of all, we must determine the brand positioning of the enterprise. Enterprises should determine their brand positioning according to product characteristics, target markets, and customer needs. The brand reflects an enterprise's core value and competitive advantage and is an essential basis for brand management. Then, enterprises should plan their brand image according to brand positioning and target market. The enterprise will spread the brand image to the target market and customers through advertising, public relations, and other activities. Finally, the enterprise monitors the brand image through market research and customer feedback to ensure stability and a good brand image.

2. Enterprises should take social responsibility as the core of their business philosophy, take social responsibility as the orientation, reduce the negative impact on the environment and resources as much as possible in the process of production and operation, actively assume their social responsibilities, and promote the sustainable development of society. Promote environmentally friendly technologies and products, reduce carbon emissions and environmental pollution, and achieve sustainable development. Strengthen product quality and safety performance testing, formulate and implement industry standards and norms, strengthen industry supervision and accountability, and promote sustainable development and social responsibility implementation. Through promoting green products and services, green marketing, and green consumption, consumers are guided to participate actively in environmental protection actions and promote sustainable development. Companies can build a positive social image through donations, charitable activities, and environmental protection.

3. Digitalization is the mainstream trend in today's society. The use of digital tools can not only improve the efficiency of enterprises but also enable enterprises to understand society better and interact with society to strengthen the social responsibility of enterprises. In digital transformation, enterprises must build extensive data analysis, information flow, transmission, etc. These processes require enterprises to understand and understand social responsibility. Digital transformation can also improve the production efficiency, product quality, and service level of enterprises, which can effectively improve the relationship with consumers, improve customer satisfaction, enable enterprises to meet the needs of society better and improve the influence of enterprises in society.

4. Enterprises should pay close attention to hot social events and public opinions, strengthen communication and cooperation with the government, media, social groups, and civil organizations, solve social problems promptly, and demonstrate their social responsibility. The automotive industry can also strengthen cross-border cooperation and alliances to work with other industries and organizations to promote sustainable development and social responsibility.

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