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The Influence of Perceived Value on the Purchase Intention of New Energy Vehicle Consumers: Empirical Evidence from Nanjing, China[†]

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Abstract

The new energy vehicles (NEVs) industry is one of the 7 strategic emerging industries in China and represents the key trajectory of the future automobile industry. The Chinese government strongly supports and promotes the innovative development of the new energy vehicle industry. The development and use of automobiles cannot be separated from the purchase and support of consumers, and consumers tend to buy brand products suitable for themselves. This study explores the impact of consumers' perceived value on the purchase intention of new energy vehicles. The research follows the quantitative methodology. This paper analyzes consumers' purchase intention from 4 aspects of perceived value. The hypothesis was verified by regression analysis and questionnaire data was collected. The research object is Nanjing citizen consumers. The results show that perceived price value, perceived quality value, perceived emotional value and perceived social value have significant positive effects on the purchase intention of Nanjing consumers. The results of this study will help to enhance the market competitiveness of new energy vehicle brands, provide certain references for stakeholders in the new energy vehicle industry, and promote the development of the new energy vehicle industry.

Keywords: New energy vehicles, Perceived value, Purchase intention, Nanjing, China

Introduction

With the rapid development of society, the world's ecological and environmental problems have become more and more serious. The air pollution caused by transportation and industrial emissions is also one of the key factors causing environmental pollution. People begin to pay more and more attention to the protection of ecological environment. This shows that new energy and renewable energy are gradually replacing high-carbon and high-emission fossil fuels, and the new energy industry will become a new emerging industry and economic growth point (He, 2016).

China has made new energy vehicles (NEVs) - a category that covers both pure electric and hybrid vehicles - a key element of its industrial strategy (Kimble & Wang, 2013). In terms of ecological environmental protection, the emergence of new energy vehicles helps to improve urban air quality, reduce photochemical smog, PM 2.5 and other pollution, and can provide support for the sustainable development of cities; In terms of production and sales, China has become the world's largest market for new energy vehicles (Huang and Qian, 2018). Nanjing, as one of the cities with the fastest growth rate, the highest degree of agglomeration and the most complete industrial support in China's new energy vehicle and parts industry, has many new energy vehicle manufacturing enterprises, and the development of the power battery industry is also very strong. In 2022, the Nanjing Municipal government introduced a phased policy of reducing the purchase tax on passenger cars and vehicles and a policy of promoting consumption of new energy vehicles to promote both quantity and quality of the new energy automobile industry chain and revive automobile consumption. Promote the expansion of domestic demand (Nanjing Industry and Information Technology Bureau, 2022).

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Under such policy conditions, the demand for new energy vehicles has maintained a rapid rising trend and has gradually become a substitute for traditional fuel vehicles. In this process, people's feelings about new energy vehicles are also constantly improving. Brand perception affects their attitude towards brands to a certain extent, and their purchasing behaviors towards products of different brands are also influenced by various factors of brand characteristics, such as product quality, emotion, reputation, price, etc. (Yang, 2018). When consumers perceive a brand's qualities to be aligned with their own values, their willingness to buy increases significantly. Therefore, this study raises the following questions:

Does the perceived value of NEVs in Nanjing, China has an impact on consumers' purchase intentions?

Literature review

In recent years, many of the world's major economies have implemented policies and measures to promote the production and sales of new energy vehicles, thereby continuously advancing the development of the new energy vehicle industry (Zhang, 2020). New energy vehicles contribute to the reduction of carbon dioxide emissions (Pasaoglu et al., 2012) by either utilizing non-traditional fossil energy to propel vehicles or, in the case of using traditional fossil fuels, employing unconventional power distribution layouts for vehicle propulsion (Ni, 2023). Consequently, numerous countries are actively promoting and expanding the adoption of new energy vehicles. In China, the primary types of new energy vehicles promoted include pure electric vehicles, plug-in hybrid electric vehicles, and fuel cell electric vehicles, with a focus on applications in buses, passenger cars, and logistics vehicles (Tan & Lin, 2019).With increasing consumer cognition, the market share of new energy vehicles has seen significant growth, rising from 0.012 % in 2009 to 5 % in 2017, representing an over 400-fold increase (Dong & Liu, 2020). According to data from China Passenger Car Association (CPCA), the overall market for new energy vehicles in 2023 has experienced substantial growth compared to 2022, with the market share relative to traditional fuel vehicles gradually increasing.

Perceived value is the consumer's perspective on the received or purchased product, stemming from their experience with the product or service after the purchase (Zeithaml, 1988). The driving factors of perceived value in terms of benefit acquisition encompass functional value (product quality, service quality, functional attributes, etc.), brand value, social value, emotional value, and more. On the side of benefit loss, it includes all costs incurred by the buyer during the purchase, comprising price, time, effort, and associated risks during the consumption process (Li & An, 2008).

Sweeney and Soutar (2001) categorized perceived value into 4 dimensions: Quality value, price value, emotional value and social value. His study concluded that quality value is the consumer's expectation of the product in terms of versatility and performance. Price value is an assessment of the value for money felt by the consumer. Emotional value is the pleasure and well-being that consumers can derive from purchasing a product or service. Social value is the utility of the purchase of the product in terms of the social impact it can have on the consumer or on others.

Purchase intention is a subjective notion. Martins et al. (2019) noted in their study that consumers' purchase intentions indicate their likelihood or willing to buy a certain product or service in the future. For automobile products, quality value, that is, product performance, comfort and price value is one of the important components of consumer perceived value, which has a certain impact on consumers' willingness to buy. Emotional value as a psychological state in the consumer use of the product to produce a sense of pleasure will also make consumers have a willingness to buy. And social value is reflected in the fact that most consumers believe that the product can match their own image, so they choose the product that matches their social identity, so the social level of perceived value is also important in the consumer's purchasing decision (Gong, 2020)

The theory of consumer perceived value was put forward by Drucker in 1954. hold that consumers do not purchase the manufacturer's product or service itself but the experiential value it brings during consumption. Porter and Millar (1985) argued that the perception of value from the consumer's perspective should be considered from the company's perspective. Creating buyer value and ensuring consumer perception are the fundamental tasks of enterprises, and measuring customer perceived value has become the core issue of concern for enterprises. Zeithaml (1988) believes that perceived value is a kind of

subjective awareness and perception generated by consumers from personal experience and loss or value obtained after using products and services and is a key factor driving consumers' purchase intention.

The establishment of perceived value is considered one of the most important measures for gaining a competitive advantage (Parasuraman, 1997) and is also regarded as a vital indicator for measuring consumer repurchase intentions (Parasuraman & Grewal, 2000). As perceived value increases, so does the strength of purchase intention, leading to positive buying behavior (Sun, 2019).

The independent variable of this study is consumers' perceived value, and the dependent variable is consumers' purchase intention. Combining the theory of consumer perceived value with previous studies and adopting the perceived value model of (Sweeney & Soutar, 2001), namely, quality perception, price perception, social perception and emotional perception, the following hypothesis is proposed:

H1: The higher the perceived quality value of consumers, the higher the purchase intention of new energy vehicles.

H2: The higher the perceived price value of consumers, the higher the purchase intention of new energy vehicles.

H3: The higher the perceived emotional value of consumers, the higher the purchase intention of new energy vehicles.

H4: The higher the perceived social value of consumers, the higher the purchase intention of new energy vehicles.

Conceptual framework

The conceptual framework of this paper holds that perceived value has an impact on consumers' purchase intention. Consumer perceived value is a subjective evaluation of consumers in the process of receiving the service or stimulation of a product. The higher the perceived value of consumers, the stronger the purchase intention of consumers (Sun, 2019).

Therefore, based on the consumer perceived value theory, this paper proposes a conceptual framework of the impact of the perceived value of new energy vehicles on consumers' purchase intention.

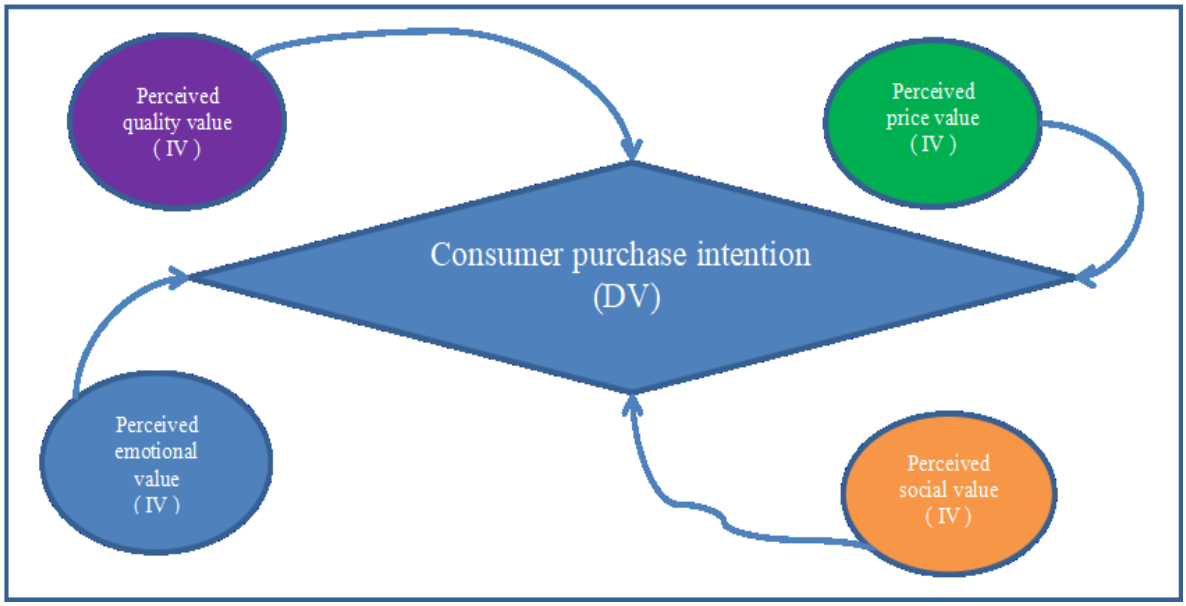

Figure 1 Conceptual framework.

Methodology

The research content of this paper is the influence of perceived value of new energy vehicles on consumers' purchase intention in Nanjing. Questionnaire survey method and quantitative data are adopted. The subjects of this study are the citizens of Nanjing. According to the Nanjing people's government shall, according to new census data according to the Nanjing municipal public security bureau, according to data

released new energy car ownership in Nanjing in 2023 as a 220,800 (https://gaj.nanjing.gov.cn/), according to the above reference, in order to ensure the reliability of sample sampling, this paper adopts Yamane Taro's formula to calculate the sample size (Yamane, 1967):

n = N/(1+Ne^2)

Take n = 220,800, e = 0.05, and bring the numbers into the formula for calculation; n = 220,800/(1+220,800*(0.05)^2). Finally, according to the calculation, n ≈ 399 is obtained. Therefore, the number of surveys in this questionnaire is set at 400.

Questionnaire survey is conducted online, questionnaire is compiled on Questionnaire Star software (Mei & Brown, 2018), questionnaire links and two-dimensional code are generated. Public consumers who have provided reserved information in new energy vehicle stores will receive return visit information and an online questionnaire on the impact of new energy vehicle perceived value on purchase intention. Finally, after the data collection is complete, the data is downloaded and analyzed. A total of 409 valid questionnaires were received.

Based on the research objectives and conceptual framework, this study used a questionnaire to collect data. Based on the existing well-established questionnaire on perceived value, a corresponding questionnaire was designed, and the following 4 parts of the survey were used:

The first part involves demographic questions, including 5 checklist questions: Gender, age, educational background and work experience.

The second part involves basic questions about new energy vehicles, including purchase tendency, price issues and views on the prospects of new energy vehicles, totaling 7 questions.

The third part is based on the independent variables of this study. It includes quality value, price value, emotional value and social value, totaling 18 questions.

The last part is 4 related questions about the dependent variable purchase intention.

In the specific analysis, the mean method will be used to analyze the survey data, which will be compiled, summed and calculated, and finally averaged. The survey collected data on 5 levels of attitudes, designed on a Likert scale of 1 - 5, where 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, and 1 = strongly disagree.

Table 1 The survey collected attitude data at 5 levels.

Reply	Score
Strongly agree	5 points
Agree	4 points
Neutral	3 points
Disagree	2 points
Strongly disagree	1 point

N (width of range) = (Max - min)/elevation (2), = (5 - 1)/5, = 0.8

Table 2 The degree of attitude reporting will be as follows.

Range	Expression
1.00 - 1.80	Strongly disagree
1.81 - 2.61	Disagree
2.62 - 3.42	Neutral
3.43 - 4.23	Agree
4.24 – 5.00	Strongly agree

This study will use descriptive statistical analysis and multiple regression analysis to understand how perceived value affects consumer purchase intention. In the specific analysis, descriptive statistical analysis is used to summarize and describe the main characteristics of the data, including measures such as mean, median, mode, standard deviation, and extreme deviation. These statistics can help us understand some basic information about Nanjing consumers and their general attitudes towards perceived value and purchase intention.

In order to confirm the correlation between the research variables, multiple regression analysis is used to test the research hypotheses, and the questionnaire data are imported into SPSS software to get the analysis results to test the research hypotheses. The regression analysis will produce some statistics to assess the predictive ability of the model, including the coefficient, R-squared (R^2), adjusted R-squared and *p*-value. The coefficient reflects the degree of correlation between consumers' perceived value and willingness to buy, with a positive coefficient indicating a positive correlation and a negative coefficient indicating a negative correlation. *p*-value reflects the statistical significance of the coefficient, with lower *p*-values indicating stronger evidence for the hypothesis, suggesting that there is a significant relationship between consumers' perceived value and willingness to buy.

Results and discussion

According to the population information and some basic questions about new energy vehicles, the questionnaire survey of Nanjing residents was analyzed, and the basic information obtained was as follows.

Table 3 Descriptive statistics on demographic information.

Name	Option	Frequency	Percentage (%)	Cumulative percentage of (%)
Gender	Female	216	52.81	52.81
	Male	193	47.19	100.00
Age	26 - 35 Years old	155	37.90	37.90
	Under 26	80	19.56	57.46
	36 - 40 Years old	95	23.23	80.68
	Above 40 years old	79	19.32	100.00
Your highest degree	PhD	24	5.87	5.87
	undergraduate	241	58.92	64.79
	Under undergraduate	106	25.92	90.71
	Master's	38	9.29	100.00
Your occupation type (general staff or service personnel)	Those working in education, research or health	40	9.78	9.78
	students	80	19.56	29.34
	Staff members of government organs, public institutions and state-owned enterprises	39	9.54	38.88
	Owners or employees of private enterprises	143	34.96	73.84

Name	Option	Frequency	Percentage (%)	Cumulative percentage of (%)
	Self-employed owners or employees	107	26.16	100.00
Your monthly income range	Under 3,000 yuan	80	19.56	62.59
	3,000 - 6,000 yuan	73	17.85	43.03
	6,001 - 9,000 yuan	72	17.60	80.20
	9,001 - 12,000 yuan	81	19.80	100.00
	12,001 - 15,000 yuan	53	12.96	12.96
	Above 15,000 yuan	50	12.22	25.18
Do you know anything about new energy vehicles?	Not well understood	73	17.85	17.85
	Basic Understanding	180	44.01	61.86
	Very understanding	156	38.14	100.00
What is your acceptable price for new energy vehicles?	100,000 - 200,000	131	32.03	32.03
	Within 100,000	99	24.21	56.23
	200,000 - 300,000	102	24.94	81.17
	Above 300,000	77	18.83	100.00
Can you accept that the price of new energy vehicles is higher than that of fuel vehicles of the same level?	Under 10,000	46	11.25	26.41
	10,000 - 50,000	184	44.99	71.39
	50,000 - 100,000	117	28.61	100.0 Above 0
	Above 100,000	62	15.16	15.16
The main way you get new energy vehicle information?	Introduction of relatives and friends	181	44.25	44.25
	Manufacturer promotion	53	12.96	57.21
	Media advertising	135	33.01	90.22
	Third-party evaluation and recommendation	40	9.78	100.00
What are your prospects for the future development of new energy vehicles?	General	44	10.76	10.76
	Not sure	29	7.09	17.85
	Better	190	46.45	64.30
	Very optimistic	146	35.70	100.00
Amount to		409	100.0	100.0

As can be seen from the above table, 52.81 % of the sample chose “female”. Male accounted for 47.19 %. Among the highest academic qualifications, the proportion of “undergraduate” is the highest 58.92 %. Most of the occupations were “Owners or employees of private enterprises”, accounting for 34.96 %. Most people have monthly incomes ranging from 9,000 to 12,000. Regarding the understanding of new energy vehicles, the proportion of “basic understanding” is large, which is 44.01 %. 38.14 % said they knew it well. “What is the price of new energy vehicles that you can accept?” The majority of the samples were “100,000 - 200,000”, accounting for 32.03 %. 44.99 % of the samples are “10,000 - 50,000”, which is more expensive than the same level of fuel vehicles, which is acceptable. In the sample, “The main way you get new energy vehicle information?”, more than 40 % of the respondents chose “Introduction of relatives and friends”. In addition, the proportion of media advertising samples was 33.01 %. “What are your prospects for the future development of new energy vehicles?” The results showed that more than 40 % chose “better”, and another very optimistic percentage was 35.70 %.

Multiple response

As can be seen from the above multiple choice, low-carbon environmental protection, low cost of use, the advantages of permits and the government’s tax reduction policy and the requirements of policies and regulations are very attractive to consumers to buy new energy vehicles.

Table 4 Summary table of response rate and penetration rate1.

Item	Respond		Penetration rate (n = 409)
	n	**Response ratio**	
What is the reason why you purchase new energy vehicles (multiple choices)? Low carbon environmental protection	202	22.39 %	49.39 %
Low cost of use	255	28.27 %	62.35 %
License advantage and tax reduction	228	25.28 %	55.75 %
Mandatory requirements of policies and regulations	217	24.06 %	53.06 %
Other	0	0.00 %	0.00 %
gather	902	100 %	220.54 %
test of agreement: $\chi 2 = 233.820$ $p = 0.000$			

Table 5 Summary table of response rate and penetration rate 2.

Item	Respond		Penetration rate (n = 409)
	n	**Response ratio**	
Which brand of new energy vehicle do you want to buy? (Multiple options) (BYD)	126	11.45 %	30.81 %
Tesla China	215	19.55 %	52.57 %
GAC	229	20.82 %	55.99 %
Geely Auto	198	18.00 %	48.41 %
Changan Automobile	140	12.73 %	34.23 %

Item	Respond		Penetration rate (n = 409)
	n	Response ratio	
SAIC-GM-Wuling	51	4.64 %	12.47 %
Leading the ideal	85	7.73 %	20.78 %
Great Wall Motor	36	3.27 %	8.80 %
NIO	20	1.82 %	4.89 %
Other	0	0.00 %	0.00 %
gather	1,100	100 %	268.95 %
test of agreement: $\chi 2 = 580.618$ $p = 0.000$			

Among the choices of new energy vehicle brands in the above table, more people choose GAC, Tesla China, Geely Automobile and Changan Automobile.

Descriptive analysis

The research content of this paper is the influence of Nanjing consumers' perceived value on the purchase intention of new energy vehicles. The following data can provide some reference for the study of purchase intention from the 4 dimensions of perceived value.

Table 6 Descriptive statistics of consumer Perceived value (n = 409).

Question	Mean	Standard deviation	Level of perception
Quality Value			
New energy vehicles consume less energy.	3.626	1.212	Agree
Stable, safe and reliable performance.	3.721	1.227	Agree
The battery life is enough for my needs.	3.677	1.294	Agree
New energy vehicles are easy to operate.	3.724	1.262	Agree
New energy vehicles have fewer failures.	3.680	1.271	Agree
Price Value			
I think the current pricing of new energy vehicles is reasonable.	3.792	1.226	Agree
The price of new energy vehicles is within my acceptable range.	3.714	1.266	Agree
Using new energy vehicles for a long time can save me money.	3.785	1.204	Agree
Buying a new energy vehicle is now worth the cost.	3.726	1.230	Agree
The cost subsidies, free charging, free parking and other policies provided by the government make me feel that buying new energy vehicles is attractive.	3.687	1.260	Agree
Emotional Value			

Question	Mean	Standard deviation	Level of perception
The energy-saving and environmental protection characteristics of new energy vehicles make me feel comfortable and happy when using them.	3.731	1.184	Agree
Buying a new energy vehicle can make me look fashionable and show my personality.	3.787	1.227	Agree
Buying new energy vehicles can reduce environmental pollution and improve the ecological environment, which makes me feel that I have contributed to environmental protection.	3.753	1.205	Agree
Social Value			
Buying new energy vehicles can make others feel that I have a sense of social responsibility.	3.648	1.292	Agree
It helps me build a good personal image.	3.587	1.267	Agree
Can improve other people's impression and opinion of me.	3.658	1.205	Agree
It makes me more likely to be recognized and praised by others.	3.555	1.333	Agree
It gives me more status, more face	3.716	1.220	Agree
Overall.	3.698	1.244	Agree

As can be seen from **Table 6**, consumers' attitude towards brand perceived value is positive. Of the 4 aspects of perceived value, the average score of perceived price value is the highest, which indicates that most consumers in Nanjing pay more attention to price value than the other 3 dimensions. Among them, the average score of "I think the price of new energy vehicles sold on the market is appropriate" is 3.792 points, indicating that Nanjing consumers are more satisfied with the current pricing of new energy vehicles.

Table 7 Descriptive statistics of consumer Purchase intention (n = 409).

Question	Mean	Standard deviation	Level of perception
I will probably buy a new energy vehicle.	3.592	1.320	Agree
I am very eager to buy a new energy vehicle.	3.604	1.274	Agree
I will buy a new energy vehicle.	3.614	1.267	Agree
I am inclined to buy new energy vehicle.	3.658	1.302	Agree
Overall.	3.617	1.291	Agree

As can be seen from **Table 7**, more consumers tend to buy new energy vehicles, with an average score of 3.658. This shows that most consumers in Nanjing are inclined to buy new energy vehicles.

Correlation analysis

As can be seen from **Table 8**, the correlation value between purchase intention and perceived price value is 0.428, and the significance level is 0.01, indicating that there is a significant positive correlation between purchase intention and perceived price value. The correlation value between purchase intention and perceived affective value is 0.460, and the significance level is 0.01, indicating that there is a significant positive correlation between purchase intention and perceived affective value. The correlation value between purchase intention and perceived social value is 0.499, and the significance level is 0.01, indicating that there is a significant positive correlation between purchase intention and perceived social value. The correlation value between purchase intention and perceived quality price is 0.362, and the significance level is 0.01, indicating that there is a significant positive correlation between purchase intention and perceived quality price.

Table 8 Correlation analysis (Pearson Related-triline format).

	Purchase intention	**The perceived price value**	**The perceived emotional value**	**Perceived social value**	**The perceived quality of the price**
Purchase intention	1				
The perceived price value	0.428**	1			
The perceived emotional value	0.460**	0.316**	1		
Perceived social value	0.499**	0.320**	0.442**	1	
The perceived quality of the price	0.362**	0.276**	0.339**	0.332**	1
* $p < 0.05$ ** $p < 0.01$					

Regression analysis

In this study, variable X is assumed to be consumers' perceived value of new energy vehicles, which can be divided into perceived price value, perceived quality value, perceived emotional value and perceived social value, and variable Y is consumers' purchase intention of new energy vehicles. Through data analysis, the influence factors of these variables on consumers' purchase intention are studied, and the following variable results are obtained.

Table 9 Results of the linear regression analysis (n = 409).

	Unstandardized coefficients		**Standardized coefficients**		**p**	**VIF**
	B	**Std. Error**	**Beta**	**t**		
Constant	−0.303	0.239	-	−1.265	0.207	-
The perceived quality value	0.111	0.045	0.104	2.459	0.014*	1.252
The perceived price value	0.223	0.044	0.209	5.037	0.000**	1.206
The perceived emotional value	0.187	0.047	0.176	3.946	0.000**	1.395
Perceived social value	0.246	0.047	0.234	5.178	0.000**	1.426
$R^2 = 0.425$, Adjusted $R^2 = 0.416$, F = 49.451, Sig. = 0.000						
Dependent variable: Purchase intention						
* $p < 0.05$ ** $p < 0.01$						

As can be seen from the above table, The model formula is as follows:

Purchase intention = −0.303 + 0.111* perceived quality value + 0.223* perceived price value + 0.187* perceived emotional value + 0.246* perceived social value, and the model R square value is 0.425. This means that perceived quality price, perceived price value, perceived emotional value, and perceived social value can explain 42.5 % of the change in purchase intention.

It was found that the model passed the F test (F = 49.451, p = 0.000 & lt; 0.05), that is, at least one of the perceived quality prices, perceived price value, perceived emotional value and perceived social value will have an impact on purchase intention.

The final concrete analysis shows that:

The regression coefficient of perceived quality price was 0.111 (t = 2.459, p = 0.014 < 0.05), which means that the perceived quality price will have a significant positive impact on the purchase intention. Therefore, H1: "The higher the perceived quality value of consumers, the higher the purchase intention of new energy vehicles". This hypothesis is accepted.

The regression coefficient of perceived price value was 0.223 (t = 5.037, p = 0.000 < 0.01), which means that the perceived price value will have a significant positive impact on the purchase intention. Therefore, H2: "The higher the perceived price value of consumers, the higher the purchase intention of new energy vehicles". This hypothesis is accepted.

The regression coefficient of perceived emotional value was 0.187 (t = 3.946, p = 0.000 < 0.01), which means that the perceived emotional value will have a significant positive impact on the purchase intention. Therefore, H3: "The higher the perceived emotional value of consumers, the higher the purchase intention of new energy vehicles". This hypothesis is accepted.

The regression coefficient of perceived social value was 0.246 (t = 5.178, p = 0.000 < 0.01), which means that the perceived social value will have a significant positive impact on the purchase intention. Therefore, H4: "The higher the perceived social value of consumers, the higher the purchase intention of new energy vehicles" This hypothesis is accepted.

Conclusions

Through descriptive analysis and correlation analysis of the collected data on the perceived value of new energy vehicles and consumers' purchase intention, this study found that consumers' perceived value and purchase intention were significantly positively correlated in 4 aspects: Perceived quality value, perceived price value, perceived emotional value and perceived social value. Regression analysis shows that the regression coefficients of perceived value and consumers' purchase intention are as follows: Perceived quality value 0.111, perceived price value 0.223, perceived emotional value 0.187, perceived social value 0.246. Therefore, the following conclusions can be drawn:

Nanjing consumers' perceived value of new energy vehicles has a significant impact on consumers' purchase intention.

The higher the perceived value of Nanjing consumers for new energy vehicles, the stronger their willingness to buy new energy vehicles.

Based on the above conclusions, it can be seen that consumers' perception of a brand's quality, price, emotion and social perception will directly affect consumers' purchase intention for the brand. In the process of purchasing new energy vehicles, consumers' perceived value of the brand is positively correlated with their purchase intention.

Therefore, in order to increase the purchase willingness of Nanjing residents for new energy vehicles and promote the development of Nanjing's new energy vehicle market, new energy vehicle brands should pay attention to the quality of their own brand products, formulate appropriate prices, and actively establish a good social image of the brand to give consumers the feeling of emotional value and social value.

Limitations of the study and suggestions for future research

This study mainly uses literature research, questionnaire survey and empirical analysis to explore the impact of perceived value on consumers' purchase intention. Based on the author's limited research level, this study found the following deficiencies:

1) Sample size and geographical limitations: The sample size of this study is small and mainly concentrated in specific areas, which may affect the universality and representativeness of the study. In addition, due to geographic and data accessibility limitations, the results of the study may not fully cover all consumer groups.

2) Data collection method: This study mainly relies on questionnaire survey and online review data, which may introduce subjective and random factors, affecting the accurate assessment of consumers' purchase intention.

3) Limitations of research on influencing factors of purchase intention: This study focuses on the influence of perceived value of new energy vehicle brands on consumers' purchase intention. However, consumers' purchase intention is also influenced by other factors, which are not fully discussed in this study.

In future studies, the authors intend to expand the scope of the sample survey to include a more diverse group of consumers from different regions of China. By conducting a more comprehensive survey, collecting more data, and conducting further analysis, the aim is to confirm the conclusions reached in this study.

Given the global importance of combating climate change and promoting ecologically sustainable development, paying attention to the development of new energy vehicles and their related research is not only crucial for China, but also for the world. In the future, it is hoped that more scholars will join in to improve and expand the research in the field of new energy vehicles. On this basis, the sample size is expanded, different data collection methods are adopted, and the influence of the development mode of new energy automobile industry on the purchase intention of different consumer groups is discussed more deeply.

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