

Chinese Consumers' Purchase Intention of Electric Car Innovation

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Abstract

This study aims to delve into the multifaceted influencing factors of electric car purchase intention within the dynamic landscape of the Chinese automotive market. By constructing a comprehensive conceptual model and integrating insights from both the Theory of Planned Behavior (TPB) and the Technology Acceptance Model (TAM), alongside an in-depth analysis of the practical context of the Chinese new energy vehicle market, we designed an extensive online questionnaire. This questionnaire was strategically distributed across three major provinces in China to ensure a diverse and representative sample. With 316 valid responses meticulously collected, our rigorous data analysis employed the latest statistical techniques using SPSS 25.0. Structural Equation Modeling (SEM) was then applied to dissect and elucidate the intricate relationships among the variables under investigation. The research findings are as follows:

1. Perceived ease of use significantly enhances perceived usefulness, thereby shaping consumer attitudes towards electric vehicles (EVs). This finding not only sheds light on the importance of user-friendly design and interface but also underscores the significance of seamless integration of EV technology into consumers' daily lives.

2. Subjective norms emerged as a significant influence on purchase intentions, highlighting the role of societal perceptions and pressures. This highlights the intricate interplay between individual decision-making and broader socio-cultural influences within the Chinese context.

3. Chinese consumers' intentions to purchase EVs are significantly influenced by their perceptions of ease of use and usefulness, their attitudes towards EVs, and the societal norms they are exposed to. Addressing these factors strategically can facilitate the development of the EV market in China.

4. This research bridges the gap between technology acceptance theories and their practical application in the context of EVs in China. By integrating TPB and TAM and applying them to real-world settings, the study offers a comprehensive understanding of consumer behavior in the emerging EV market.

Keywords: perceived usefulness; perceived ease of use; attitude; subjective norms; electric car

Introduction

The transformation of the Chinese automotive sector is indeed profound and unprecedented, with new energy technologies gradually supplanting conventional fuels. This evolution has positioned China at the forefront of the global new energy vehicle market, both in magnitude and growth trajectory (Ou, Zhang, & Chang, 2010; Yang et al., 2016). Recent empirical evidence underscores the exponential growth trajectory of China's electric vehicle (EV) sector. In 2018, the nation's annual production and sales of EVs exceeded 1.2 million units, representing a remarkable year-on-year growth of over 50% (Zhang & Qin, 2018; Liu & Santos, 2018). This consistent uptick in EV sales has consistently surpassed market prognostications, with sequential months registering robust growth (He, Wang & Zhang, 2019).

Moreover, the domestic Chinese EV market has witnessed a remarkable surge, with homegrown brands emerging as formidable contenders. These brands, including industry stalwarts such as BYD and SAIC Roewe, now command an overwhelming 95% of the domestic market share in the new energy passenger vehicles segment (Zhou, Wu & Zhou, 2020). Their relentless pursuit of innovation, coupled with substantial investments in research and development, supply chain synergies, and avant-garde marketing paradigms, has propelled the ascendancy of the Chinese EV market. Notably, data from 2020 indicates that the Chinese market accounted for nearly 30% of global EV sales, underscoring its pivotal role in driving the adoption of electric vehicles worldwide.

Despite the remarkable growth and dominance of the Chinese EV market, significant challenges lie ahead. Chief among them is the burgeoning influx of nascent EV brands, many of which, despite their innovative visions, grapple with capital-intensive requirements and the intricate transition from ideation to mass-scale production (Sun, Zhang & Li, 2019). In this intricate landscape, a nuanced understanding of consumer purchase predilections and the multifaceted determinants influencing them is indispensable.

In light of these challenges, it's imperative to underscore the academic significance of exploring theories such as the Theory of Planned Behavior (TPB) and the Technology Acceptance Model (TAM) in the context of this study. These theories provide a robust theoretical framework for understanding consumer behavior and the adoption of new technologies. By integrating insights from TPB and TAM, this research aims to bridge the gap between theoretical frameworks and practical application, offering valuable insights for Chinese EV manufacturers navigating this transformative epoch (Wang, Liu & Ton, 2020). Moreover, given the dynamic nature of the Chinese EV market, conducting a survey on Chinese consumers' willingness to purchase new energy electric vehicles is crucial. Such research would provide invaluable insights into consumer preferences and help inform strategic decision-making processes for stakeholders across the industry.

Research Objectives

1. To construct a conceptual model of the influencing factors of electric car purchase intention.
2. To study the perceived ease of use, perceived usefulness, ionospheric values, and subject norm affect the attitude and purchase intention.

Literature Review

1. Relationship between Perceived ease of use and Perceived usefulness

Perceived usefulness and perceived ease of use are fundamental factors influencing the acceptance of new technology. Perceived usefulness reflects a person's belief in how a technology can enhance their performance, while perceived ease of use relates to how easy or difficult it is to operate the technology. Research indicates that when consumers find a technology easy to understand and use, it enhances their perception of its usefulness. For instance, in the context of electric cars, a user-friendly battery charging system, characterized by simplicity and accessibility, contributes to consumers' perception of ease of use and, in turn, the perceived usefulness of the product (Azmi & Bee, 2010; Moslehpour et al., 2018). Therefore, perceived ease of use plays a crucial role in determining perceived usefulness when adopting new technologies.

Therefore, the hypotheses are as follows:

Hypothesis 1: Perceived ease of use has a direct effect on perceived usefulness.

2. Relationship between Perceived usefulness and Attitude

According to the Technology Acceptance Model (TAM), perceived usefulness, defined as the belief that a technology enhances one's performance, influences behavioral attitudes. This means that if people anticipate a technology will improve their job performance, they are more likely to have a positive attitude towards and a greater intention to use it. Numerous studies support this notion, showing that perceived usefulness significantly impacts attitudes and intentions to use specific technologies (Buchanan, Sainter, & Saunders, 2013; Djasasbi, Fruhling, & Loiacono, 2009; Guritno & Siringoringo, 2013). In the context of electric cars, the completeness of information and the extent to which users perceive them as useful play a pivotal role in enhancing efficiency and convenience, consequently fostering positive attitudes toward these vehicles. In summary, when users perceive electric cars as highly useful, their attitudes become more positive, underscoring the crucial link between perceived usefulness and positive consumer attitudes.

Therefore, the hypotheses are as follows:

Hypothesis 2: Perceived usefulness has a direct effect on attitude.

3. Relationship between Perceived ease of use and Attitude

Perceived ease of use is a crucial concept in technology acceptance models, denoting the perception of how effortless it is to use a new technology. This key variable is defined as the degree to which using the system requires minimal effort or is easy to understand and operate. In consumer behavior research, it holds significant importance. Specifically, in organizational settings, perceived ease of use explains user perceptions regarding the adoption and use of new technology, which can involve costs and learning efforts for the organization. Studies have shown that when consumers perceive a product as easy to use, it positively influences their attitudes, emphasizing the link between ease of use and consumer attitudes (Davis, 1989; Jen & Hung, 2010; Chien et al., 2019).

Therefore, the hypotheses are as follows:

Hypothesis 3: Perceived ease of use has a direct effect on attitude.

4. Relationship between Perceived usefulness and Purchase intention

Perceived usefulness is a fundamental driver of user acceptance of new technology, representing the extent to which individuals believe that using a technology will enhance their performance. This concept plays a pivotal role in predicting user attitudes and has consistently shown positive effects on behavioral intentions. Research has demonstrated that perceived

usefulness directly influences users' intentions, as seen in studies related to e-government websites and online learning systems. In the context of the Technology Acceptance Model, perceived usefulness has a direct impact on consumer behavioral intentions and does not necessitate attitudes to mediate indirect effects. Furthermore, it is evident that consumers' purchase intentions for new car technologies are influenced by the perceived usefulness of innovative features and technologies (Hansen, Saridakis & Benson, 2018 ; Moslehpour et al., 2018).

Therefore, the hypotheses are as follows:

Hypothesis 4: Perceived usefulness has a direct effect on purchase intention.

5.Relationship between Subjective norms and Purchase intention

Consumers' subjective norms reflect their consideration of whether individuals or groups with significant relationships agree with their consumer behavior, often influenced by the social pressure of surrounding reference groups. Studies, such as Ajzen and Fishbein's Planned Behavior Theory, have affirmed that consumer behavior is influenced by perceived pressure from important reference groups. Particularly in Chinese society, subjective norms hold significant sway, as individuals seek social acceptance and aim to avoid criticism from their surrounding groups. This phenomenon is observed in green consumption studies, where the adoption of eco-friendly choices by reference groups positively impacts individuals' willingness to engage in green consumption. Therefore, if individuals within a consumer's social circle purchase or use electric cars, or if the surrounding groups encourage such behavior, it can trigger a herd mentality effect and influence the consumer's willingness to buy electric cars (Lam & Hsu, 2004; Ham, Jeger, & Frajman Ivković, 2015)

Therefore, the hypotheses are as follows:

Hypothesis 5: Subject norm has a direct effect on purchase intention.

6.Relationship between Attitude and Purchase intention

Fishbein and Ajzen's Theory of Reasoned Action, introduced in 1975, offers insights into the rationality of individual behavior, serving as the foundation for the subsequent Theory of Planned Behavior. This theory posits that behavioral intention, shaped by attitudes, subjective norms, and perceived behavioral control, is a critical precursor to decision-making and behavior. Numerous studies have underscored the direct influence of consumers' attitudes on their purchase intentions. For instance, research on Malaysian consumers' green food purchase behavior demonstrates how attitudes, subjective norms, and perceived behavior control jointly influence

positive purchase intentions. The predictive power of attitude variables in shaping purchase intentions has been confirmed in various empirical studies. These studies illustrate that positive attitudes toward products lead to higher purchase intentions, and this relationship has been demonstrated in the context of environmentally friendly products, tourist souvenirs, and green products. In the case of electric cars, a positive attitude toward them is indicative of a higher likelihood of purchase, particularly in the context of promoting environmental protection (Singh & Banerjee, 2018; Maichum, Parichatnon & Peng, 2016; Florenthal & Arling, 2011; Pascal, Spratt, & Muehling, 2002).

Therefore, the hypotheses are as follows:

Hypothesis 6: Attitude has a direct effect on purchase intention.

The literature review in the research article focuses on understanding Chinese consumers' purchase intentions for electric vehicles (EVs). It integrates concepts from the Theory of Planned Behavior (TPB) and the Technology Acceptance Model (TAM) to explore how perceived ease of use, perceived usefulness, and subjective norms affect attitudes and purchase intentions towards EVs. The review discusses the relationships between these variables, providing hypotheses based on previous research. It aims to bridge the gap between technology acceptance theories and their practical application in the context of EVs in China, offering a comprehensive understanding of consumer behavior in the emerging EV market.

Conceptual Framework

This study combines the Theory of Planned Behavior (TPB) and the Technology Acceptance Model (TAM) to comprehensively analyze Chinese consumers' electric car purchase intentions. TPB and TAM, both rooted in rational behavior theory, are integrated for their compatibility and complementary nature. This approach enhances the model's explanatory power by incorporating variables like perceived usefulness and perceived ease of use from TAM into TPB. Combining these models is supported by previous research, as it allows for a holistic understanding of technology acceptance and usage intentions. In this study, we investigate the impact of perceived usefulness, perceived ease of use, and subjective norms on Chinese consumers' attitudes and perceived behavior toward electric cars, shedding light on the key factors driving their purchase intentions (Marangunić & Granić, 2015; Mathieson, 1991; Nasri & Charfeddine, 2012; Yaghoubi & Bahmani, 2010).

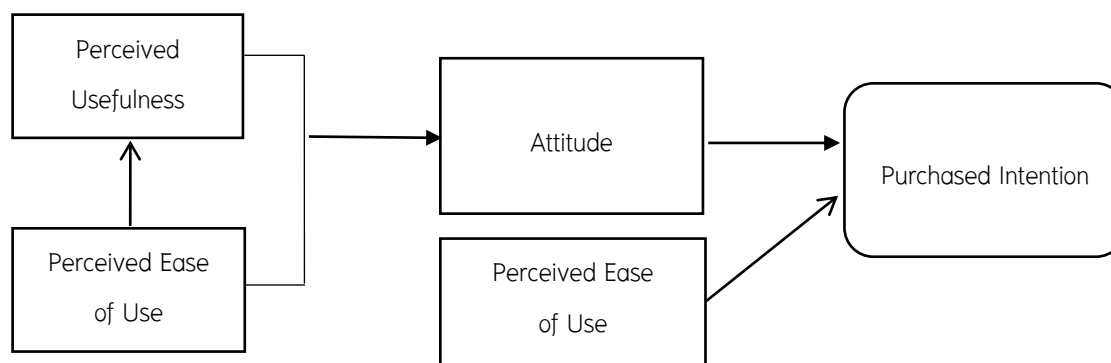


Fig.1 Conceptual Framework

Research Methodology

1. Population and Sampling

In 2021, the cumulative sales of new energy passenger vehicles nationwide reached 2,927,430 units, nearly hitting the 3 million mark, signifying a remarkable year-on-year increase of approximately 156% (compared to 1,142,786 units sold in 2020). Notably, the top three provinces in terms of sales volume were Guangdong with 418,049 units sold, Zhejiang with 316,536 units, and Shanghai with 244,961 units. Therefore, for the purpose of this study, these three provinces were selected as the distribution sites for the questionnaire. The sampling method employed was convenience sampling, as it allowed for convenient access to potential respondents within the targeted provinces. Data collection was conducted via an online questionnaire distributed to customers residing in the selected provinces. In determining the sample size, while Cohen (1988) provides valuable guidance suggesting a minimum of 200 participants for social science research, it's also essential to consider standards aligned with the analysis technique, such as those proposed by Hair et al. Considering the complexity of the analysis technique, Structural Equation Modeling (SEM), and in alignment with Hair et al.'s standards, a sample size of 400 questionnaires was distributed. Ultimately, 316 valid questionnaires were received, resulting in a valid response rate of 79%, surpassing the minimum threshold suggested by Cohen (1988) and ensuring a robust dataset for analysis.

2. Research Instrument

For the perceived ease of use, Davis (1989) defined perceived ease of use as the user's perceived ease of use of an information system, and it can also be understood as the user's perceived time from accepting a new technology to being proficient in using it. This study is based

on the research of David and Venkatesh. This study believes that technology acceptance refers to the consumer's acceptance of electric cars as a new technology product, which is evaluated from the perceived ease of use. Perceived ease of use refers to the degree of difficulty consumers perceive to use electric vehicles. This study refers to the research of scholars David and Venkatesh (2007), and combined with the characteristics of electric car in this study, the existing scale is modified.

For the perceived usefulness, when Davis (1989) proposed TAM, perceived usefulness was defined as the size of the user's improved performance level by accepting a technology. Venkatesh (2007) defined perceived usefulness as a consumer's subjective feeling about something, which affects the consumer's future behavior. This study is based on the research of David and Venkatesh scholars. This study believes that technology acceptance refers to the consumer's acceptance of electric cars as a new technology product, which is evaluated from the perspective of perceived usefulness. Perceived usefulness refers to the usefulness of electric cars as perceived by consumers.

For the attitude, the attitude of electric car mainly measures consumers' cognition and understanding of green environmental protection concepts and electric car products, combined with their own sense of social responsibility, and subjective evaluation of electric car products. The design of this part of the question refers to Boudrea and Godin (2009).

The subjective norm mainly measures whether consumers will change their attitudes and willingness to electric car because of the pressure of the surrounding groups. The design of this part of the question refers to the question of the subjective norm measurement in the research of Park and Lessig (1977).

For the purchase intention, Survey consumers' cognition of the concept of electric car, the purchase intention of electric car through questions. The variable of electric car purchase intention mainly measures the psychological commitment of consumers to the behavior of purchasing and using electric car, and reflects the respondents' preference for electric car from the emotional and psychological aspects. When designing the question item of purchase intention, refer to the relevant questions about purchase intention in Liu, Zen and Wang (2021) research.

Research Results

1. Demographic Data of the Respondents

It was found that the survey sample comprised 316 participants, with 181 (57.3%) identifying as male and 135 (42.7%) identifying as female. In terms of age, 121 (38.3%) were aged between 30–39, 81 (25.6%) were aged between 40–49, 53 (16.8%) were aged between 20–29, 45 (14.2%) were aged above 50, 16 (5.1%) participants were less than 20 years old. Regarding education level, 139 (44.0%) are graduate degree, 99 (31.3%) are get undergraduate degree, 59 (18.7%) are the get doctor degree, 19 (6.0%) participants below undergraduate, respectively.

2. Reliability analysis

This study performed Cronbach's alpha (Cronbach, 1951) to measure the internal validity and consistency of items used for each construct. The Cronbach's alpha is defined as the square of the correlation between the measured scale and the underlying factor (Bacon et al., 1995). The rules of thumb for both Cronbach's alpha and composite reliability should be above .7 (Hair et al., 1998; Nunnally & Bernstein, 1994). It shows that reliability coefficient value of the research data is higher than .9, which comprehensively indicates that the data reliability is of high quality and can be used for analysis.

3. Reliability analysis

The KMO and Bartlett's Test of Sphericity of this questionnaire were obtained by using SPSS 25.0 software, the overall KMO of this scale is .919, which is greater than .7. The Bartlett test is significant, indicating that the sample data is suitable for further factor analysis.

4. Result of Correlation analysis

Convergent validity refers to how closely the new scale is related to other variables and other measures of the same construct (Krabbe, 2017). Each construct had a composite reliability (CR) higher than 0.863. The CR indicates consistency of respondents when answering the same questions as seen in the fact that more or less the same scores were obtained over the range of 316 responses. It was also found that all constructs of the AVE are greater than .5 and the CR value is greater than 0.7, which means that the convergent validity is high. Findings indicate that all items in each construct could measure variables in their own constructs very well, it can be seen table 1 below.

To test discriminant validity, we implement the square root of the average variance extracted (AVE) of each construct, suggested by Fornell and Larcker (1981). As can be seen in

Table, the square root of AVE had a higher value than all other values for Cross Construct Correlation in the same column (Fornell & Larcker, 1981). Use the Pearson correlation coefficient to represent the strength of the correlation. As can be seen from the table, correlation analysis is used to study the correlation between PI and PEU, PU, AT, SN. It can be found that there is a significant positive correlation between variables.

Table 1 Mean, SD and Correlation analysis

Variable	MEAN	SD	CR	AVE	PEU	PU	AT	SN	PI
PEU	3.517	.918	.939	.564	.751				
PU	3.534	.824	.885	.584	.432**	.696			
AT	3.605	.855	.863	.535	.326**	.417**	.660		
SN	3.733	.837	.914	.543	.393**	.455**	.324**	.737	
PI	3.558	.872	.929	.595	.369**	.498**	.379**	.510**	.771

Note** $p < 0.01$; SD= Standard Deviation; CR= Composite reliability; AVE= Average variance extracted; PEU= Perceived ease of use; PU= Perceived Usefulness; AT= Attitude; SN= Subjective norm; PI= Purchase intention.

5. SEM Analysis and Hypothesis Testing

This study uses the Structural Equation Model to find the causal relation between the four independent variable and the dependent variable through one mediating variable. The assessment of multicollinearity was verified by checking the full variance inflation factor (VIF). The value must be under 3.3 (Kock, 2015). The analysis showed that the highest full VIF value was 1.352, which indicates that multicollinearity may not seriously concern in the analysis. Lastly, the presence of CMB was also confirmed by the Harman one-factor test (Podsakoff et al., 2003). The model fit indices were weaker than were those in the original model ($\chi^2/df=1.607$, GFI=.944 AGFI=.922, NFI=.959, CFI=0.984, TLI=.980, RMSEA=.044), suggesting that CMB was not a serious issue in the analysis.

Table 2 Model fitting indicators

Model fitting indicators										
Indicators	χ^2/df	GFI	RMSEA	CFI	NFI	NNFI	TLI	AGFI	IFI	SRMR
Judgment criteria	<3	>.9	<.10	>.9	>.9	>.9	>.9	>.9	>.9	<.1
Value	1.607	.944	.044	.984	.959	.980	.980	.922	.984	.086

Default Model: $\chi^2(120)=3755.125$, $p=1.000$

In this study, the χ^2/df is 1.607, less than 3, which means that the model has a good fitting effect. At the same time, RMSEA value is .044 less than .10, CFI value is .984 greater than .9, while NFI, NNFI, TLI, AGFI and IFI values are all greater than .9, SRMR value is .086 less than .1, and other indicators are all within the standard range, indicating that the model is well constructed and the model results are reliable.

Table 3 Hypothesis Test

X	→	Y	Coef.	SE	z (CR)	p	Std.Estimate
PEU	→	PU	.312	.043	7.253	.000	.459
PU	→	AT	.484	.086	5.647	.000	.392
PEU	→	AT	.154	.053	2.898	.004	.184
PU	→	PI	.374	.073	5.126	.000	.330
SN	→	PI	.358	.052	6.893	.000	.368
AT	→	PI	.145	.056	2.612	.009	.158

PEU= Perceived ease of use; PU= Perceived Usefulness; AT= Attitude; SN= Subjective norm; PI= Purchase intention.

Table 3 delineates the influence relationships of latent variables and the measurement relationships, testing the hypothesized relationships between variables.

From Table 3, it's evident that PEU significantly affects PU at the .000 level, with a standardized path coefficient value of .459. This indicates a substantial positive impact of PEU on PU. In summary, PEU exerts a significant positive influence on PU. Thus, Hypothesis 1 is supported.

Regarding Hypothesis 2, the table shows that PU significantly affects AT at the .000 level, with a standardized path coefficient value of .392. This suggests that PU has a pronounced positive impact on AT. In summary, PU positively influences AT. Therefore, Hypothesis 2 is supported.

For Hypothesis 3, the table reveals that PEU significantly affects AT at the .004 level, with a standardized path coefficient value of .184. This indicates that PEU has a notable positive impact on AT. In summary, PEU positively influences AT. As a result, Hypothesis 3 is supported.

In the case of Hypothesis 4, the table demonstrates that PU significantly affects PI at the .000 level, with a standardized path coefficient value of .330. This suggests that PU has a significant positive influence on PI. In summary, PU exerts a positive impact on PI. Consequently, Hypothesis 4 is supported.

For Hypothesis 5, the table indicates that SN significantly affects PI at the .000 level, with a standardized path coefficient value of .368. This means that SN has a substantial positive impact on PI. In summary, SN positively influences PI. Thus, Hypothesis 5 is supported.

Lastly, for Hypothesis 6, the table shows that AT significantly affects PI at the .009 level, with a standardized path coefficient value of .158. This suggests that AT has a significant positive influence on PI. In summary, AT exerts a positive impact on PI. Therefore, Hypothesis 6 is supported.

The empirical analysis, aimed at determining the effects on the purchase intention of electric cars in China, was anchored by the conceptual framework and the derived study hypotheses. The results of the analysis are presented based on these hypotheses.

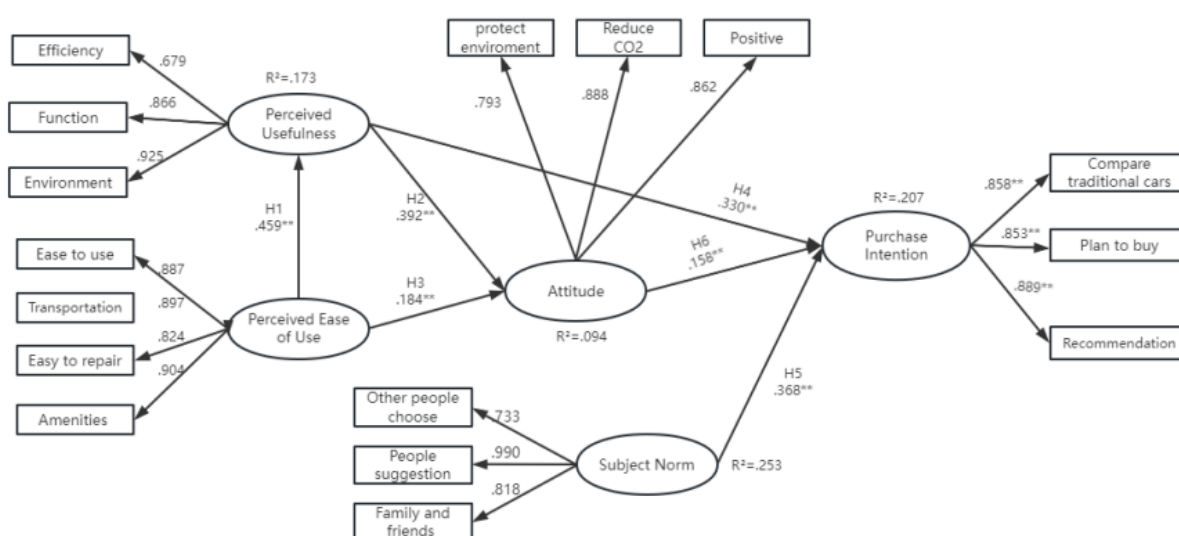


Fig.2 SEM analysis of the structural model

Discussions

This study focuses on understanding Chinese consumers' purchase intentions for electric vehicles (EVs). It integrates concepts from the Theory of Planned Behavior (TPB) and the Technology Acceptance Model (TAM) to explore how perceived ease of use, perceived usefulness, and subjective norms affect attitudes and purchase intentions towards EVs. In summary, these six hypotheses suggest that perceived ease of use, perceived usefulness, attitude, and subjective norms are all factors that influence a consumer's purchase intention. These findings have important implications for businesses and marketers who want to design products and services that are easy to use, perceived as useful, and positively evaluated by consumers. By understanding the relationship between these variables, businesses can create effective marketing strategies that increase consumer satisfaction and loyalty.

However, it is important to note that, despite our study's support for these hypotheses, we also found some results inconsistent with previous research. For example, while past studies have shown that attitude has a significant impact on purchase intention, in our study, we observed that the influence of attitude was not as strong as expected. This may be due to the changing attitudes and behaviors of Chinese consumers in the EV market, as well as other factors not considered. Therefore, future research could further explore these inconsistencies and gain deeper insights into the decision-making process of consumers in the EV market. Additionally, our study's results are consistent with past research findings, supporting the effectiveness of the TPB and TAM theoretical frameworks in explaining consumer behavior. This further strengthens our confidence in the applicability of these theories in practice and provides a solid foundation for future research to further explore trends in the development of the Chinese EV market and consumer behavior.

Knowledge from Research

Electric cars have been gaining popularity in recent years as a more environmentally friendly alternative to traditional gasoline-powered vehicles. However, the adoption of electric cars has been slower in some countries than others. China, as the world's largest car market, has been a key focus for electric car innovation. The study's findings have illuminated several key factors that hold sway over Chinese consumers' purchase intentions, fundamentally enriching the academic discourse surrounding this field.

In terms of the Perceived Usefulness. A significant discovery emerges from the pronounced impact of perceived usefulness on Chinese consumers' purchase intentions for electric cars. This

substantiates the central tenets of the Technology Acceptance Model (TAM), where the perception of an innovation's utility is a pivotal driver in the decision-making process (Davis, 1989). The study underscores that when consumers perceive electric cars as useful solutions that meet their transportation needs, their intentions to embrace these innovative vehicles are significantly heightened. This empirical validation reaffirms the enduring relevance of perceived usefulness as a cornerstone of technology adoption.

In terms of Attitude. Another compelling revelation surfaces in the influential role of attitude on Chinese consumers' purchase intentions for electric cars. Aligning with the Theory of Planned Behavior (TPB), the study underscores that consumers' positive attitudes toward electric cars markedly enhance their intention to purchase (Ajzen, 1991). This intricate interplay elucidates the pivotal role of psychological factors in shaping consumer behavior. As attitudes are shaped by perceptions of benefits, environmental consciousness, and technological innovation, the findings offer a profound glimpse into how such attitudes propel purchase decisions within the context of electric vehicles.

In terms of Subject Norm. Perhaps one of the most notable discoveries is the substantive impact of subjective norms on Chinese consumers' purchase intentions. The research demonstrates that the influence of societal expectations, norms, and peers holds a pivotal role in shaping purchase behavior. This discovery substantiates the Theory of Planned Behavior's assertion that social pressures and norms significantly affect behavioral intentions (Ajzen, 1991). In the realm of electric cars, the study reveals that consumers' intentions to embrace this sustainable mode of transportation are notably heightened when they perceive such a choice as socially endorsed and normative.

Collectively, these groundbreaking findings unravel the intricate tapestry of consumer decision-making within the electric vehicle domain in China. They cement the enduring relevance of established theoretical frameworks, such as the TAM and TPB, while also shedding new light on the profound influence of subjective norms. The implications of these discoveries are far-reaching, offering academia, policymakers, and industry stakeholders invaluable insights into the multifaceted factors that drive Chinese consumers' intentions to embrace electric cars, thus paving the way for a more sustainable automotive landscape.

Conclusion

This research meticulously analyzed the purchase intentions of Chinese consumers towards electric vehicles (EVs), emphasizing key determinants such as perceived ease of use, perceived usefulness, attitude, and subjective norm. The empirical data, grounded in the Structural Equation Model, revealed that a user-friendly experience significantly bolsters the perceived value of EVs, with a direct correlation observed. Furthermore, the tangible benefits of EVs were found to shape favorable consumer attitudes, while the simplicity of operation also played a pivotal role in influencing perceptions. The study also highlighted the strong correlation between the perceived benefits of EVs and the intent to purchase them. Most notably, societal perceptions and endorsements emerged as potent factors in driving EV sales. Collectively, these empirical findings provide a detailed perspective for stakeholders in the Chinese EV market, suggesting that by emphasizing user experience, tangible benefits, and societal endorsements, the industry can effectively enhance the adoption and growth of electric vehicles in China's evolving automotive landscape.

Suggestions

Given the insights derived from this research, it's crucial for key players in the Chinese electric vehicle (EV) market to adopt diverse strategies. These strategies should not only focus on enhancing the user experience through ease of use and practical functionality but also on societal engagement and education to shift perceptions and norms positively. By harnessing the insights on consumer attitudes and subjective norms, manufacturers and policymakers can collaborate on initiatives such as improving infrastructure for EVs, offering incentives, and launching educational campaigns that highlight the environmental and economic benefits of EVs. Furthermore, considering the significant influence of societal perceptions, strategies involving opinion leaders or influencers to advocate for EV adoption could be highly effective. Engaging with local communities, hosting EV experience events, and fostering partnerships with green energy proponents can further amplify the positive narrative around EVs. As the market continues to evolve, continuous feedback loops with consumers will be essential to adapt and refine these strategies, ensuring that the momentum towards EV adoption in China remains robust and sustainable.

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