



The Role of Brand Awareness, Brand Trust, and Corporate Empathy in Consumer Purchase Intention: A Study of the New Energy Vehicle Industry

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Abstract

Background and Aim: The rapid transformation of the automotive industry, driven by technological advancements and sustainability concerns, has positioned the new energy vehicle (NEV) sector as a crucial area for academic and market research. Understanding consumer purchase intentions in this emerging market is essential for manufacturers and policymakers. This study investigates the relationships between brand awareness, brand trust, and corporate empathy in influencing consumers' willingness to purchase NEVs.

Materials and Methods: Empirical data were gathered using structured questionnaires administered to NEV consumers through both online and offline channels, facilitating the inclusion of diverse consumer perspectives. The study employs quantitative analysis techniques, including structural equation modeling (SEM), to rigorously test hypotheses and assess the relative influence of brand-related factors on consumer purchase intentions.

Results: Findings indicate that brand trust has the most significant direct impact on purchase intention, while brand awareness plays a crucial role in shaping initial consumer perceptions. Corporate empathy enhances these relationships by fostering emotional bonds between consumers and brands.

Conclusion: These insights provide valuable theoretical contributions to consumer behavior research and practical implications for NEV companies to refine their marketing strategies. The study suggests that fostering trust, transparency, and empathy is essential for improving consumer loyalty and market adoption of NEVs. Future research should incorporate cross-cultural comparisons and external market factors, such as government policies and infrastructure development, to further understand the complexities of NEV consumer decision-making.

Keywords: Brand Trust; Corporate Empathy; Purchase Intention; Consumer-Enterprise Interaction; Brand Awareness; New Energy Vehicles (NEVs); Structural Equation Modeling (SEM)

Introduction

In recent years, the new energy vehicle (NEV) industry has experienced exponential growth due to rising environmental concerns, technological advancements, and supportive government policies. As the world transitions towards a sustainable future, consumers are increasingly considering NEVs as a viable alternative to traditional gasoline-powered vehicles (Chen et al., 2019; Zhang et al., 2023). However, despite the growing interest, consumer adoption remains uneven, influenced by factors such as brand awareness, trust, and corporate empathy (Wang & Huang, 2023). Understanding how these factors shape purchase intention is critical for both academia and industry stakeholders.

Brand awareness and trust have long been recognized as fundamental determinants of consumer behavior (Aaker, 1991; Keller, 2013). In the NEV market, where technological unfamiliarity and range anxiety remain significant barriers, building consumer trust is essential (Grewal et al., 2021). Moreover, the role of corporate empathy, defined as a brand's ability to understand and respond to consumer emotions, has gained attention in recent research (Kim & Lee, 2021; Thomas & Smith, 2022). While previous studies have examined brand trust and awareness, limited research has explored the moderating role of corporate empathy in purchase decisions.

Despite growing interest, empirical investigations into corporate empathy remain limited, especially concerning its potential moderating role in the relationship between brand-related factors and consumer purchase behavior. To address this gap, the present study examines how brand awareness and brand trust influence NEV purchase intention, and whether corporate empathy moderates these relationships. By integrating corporate empathy into the existing theoretical framework, this research offers a more nuanced





understanding of how emotional and relational brand attributes impact consumer adoption in the emerging NEV market.

This study aims to address this gap by investigating how brand awareness and trust influence purchase intention and how corporate empathy moderates these relationships. By integrating relationship marketing theory and social information processing theory, this research provides a comprehensive framework for understanding consumer behavior in the NEV market.

The transition from internal combustion engine (ICE) vehicles to NEVs has been a defining trend in the global automotive industry. Governments worldwide have introduced policies to promote NEV adoption, such as tax incentives, subsidies, and investments in charging infrastructure (BNEF, 2023; European Commission, 2022). Despite these efforts, consumer hesitation persists due to concerns over battery life, resale value, and long-term reliability (Accenture, 2023).

One of the key challenges faced by NEV manufacturers is establishing strong brand recognition and trust. Unlike traditional automakers, many NEV brands are relatively new, lacking the decades-long reputation enjoyed by established gasoline vehicle manufacturers (McKinsey & Company, 2022). Studies suggest that brand awareness significantly influences consumer willingness to adopt new technology, as it reduces perceived risk and enhances familiarity (Kim, Kang, & Lee, 2019).

Additionally, brand trust plays a crucial role in purchase decisions, especially in industries where consumer uncertainty is high (Chaudhuri & Holbrook, 2001). Trust in NEV brands is shaped by factors such as product reliability, customer service, and corporate reputation (Singh & Dhir, 2019; Wang et al., 2023). NEV companies that consistently deliver on their promises and maintain transparency can enhance consumer confidence and loyalty.

Corporate empathy has emerged as a differentiating factor for brands in competitive industries. Companies that demonstrate empathy—through responsive customer service, social responsibility initiatives, and consumer-centric communication—can build stronger emotional connections with customers (Smith & Green, 2021). In the NEV industry, empathy is particularly relevant, as consumers often seek reassurance regarding charging infrastructure, maintenance support, and environmental impact (Wang et al., 2023).

Consumer attitudes toward NEVs have evolved significantly over the past decade. Initially, adoption was driven by early adopters who were motivated by technological innovation and environmental consciousness (IEA, 2020). However, as NEVs enter the mass-market phase, mainstream consumers prioritize practical considerations such as affordability, convenience, and brand reliability (JD Power, 2022). A recent survey conducted by Accenture (2023) found that:

- 67% of consumers consider brand reputation when purchasing an NEV.
- 55% cite charging infrastructure as a major concern.
- 72% believe that government incentives influence their decision to switch to an NEV.

This indicates that while financial incentives play a role, brand-related factors remain critical in shaping consumer choices. Companies that can build strong brand awareness, trust, and empathy are more likely to succeed in the competitive NEV landscape.

To better illustrate consumer trends, we present a histogram showing the key factors influencing NEV purchase decisions, based on survey data from multiple studies.

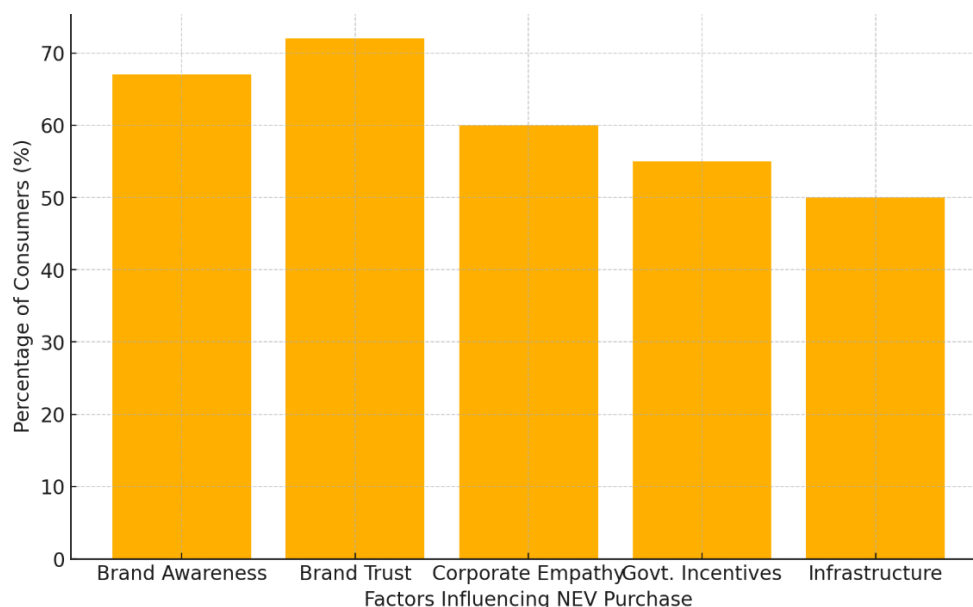


Figure 1 Key Factors Influencing NEV Purchase Intentions

The histogram visually represents the key factors influencing consumer purchase intentions for new energy vehicles (NEVs) based on survey data. This chart highlights the relative importance of various determinants and helps understand consumer preferences in the NEV market.

The most significant factor influencing purchase intention is brand trust, with 72% of respondents indicating that trust in a brand plays a crucial role in their decision-making process. This finding suggests that consumers are more likely to buy from brands they perceive as reliable, credible, and consistent in delivering high-quality products and services. Since NEVs involve advanced technology and long-term use, trust in the brand's commitment to innovation, safety, and after-sales service significantly impacts purchase decisions.

The second most influential factor is brand awareness, cited by 67% of respondents. This underscores the importance of strong market presence, effective advertising, and recognizable brand identity. Consumers are more inclined to choose NEVs from brands they are familiar with, as higher awareness often translates into perceived reliability and industry leadership.

Corporate empathy also plays a considerable role, influencing 60% of consumers in their purchase decisions. This suggests that companies that demonstrate emotional understanding, engage with consumers meaningfully, and address consumer needs effectively tend to foster stronger emotional connections, ultimately driving purchase intention.

In addition to brand-related factors, external influences such as government incentives and the availability of charging infrastructure also play important roles in shaping consumer purchase decisions in the New Energy Vehicle (NEV) sector. Survey data indicate that government incentives—such as purchase subsidies, tax rebates, and registration privileges—are considered influential by 55% of respondents. Likewise, the accessibility and coverage of charging infrastructure were identified as critical by 50% of participants. These findings align with prior studies that have emphasized the role of public policy and infrastructural readiness in lowering perceived barriers to NEV adoption (Li et al., 2020; Sovacool et al., 2018).

However, despite the significance of these external factors, the data reveal that brand-related perceptions—namely, brand trust, brand awareness, and corporate empathy—exert a comparatively stronger influence on consumer behavior. This suggests that while supportive government measures and robust charging networks create favorable conditions for adoption, they are not sufficient on their own to



convert consumer interest into actual purchase behavior. Instead, consumers place substantial weight on how they perceive the brand itself—its reputation, reliability, and responsiveness to consumer needs.

Objectives

1. To examine the impact of brand awareness on consumer purchase intention in the new energy vehicle (NEV) market.
2. To assess the role of brand trust in shaping consumer purchase decisions regarding NEVs.
3. To investigate the moderating effect of corporate empathy on the relationship between brand awareness, brand trust, and purchase intention.
4. To analyze the influence of consumer-enterprise interactions (both online and offline) on brand awareness and brand trust.
5. To provide theoretical and managerial insights for NEV companies to enhance their branding strategies, consumer engagement, and trust-building efforts.

Literature review

Introduction to Consumer Behavior and Purchase Intention in the NEV Industry

The study of consumer behavior, particularly in the context of new energy vehicles (NEVs), has garnered significant attention in recent years due to the industry's rapid evolution and the increasing focus on sustainable transportation (Gao, Ma, Zou, & Du, 2023; Akkalaham & Taghipour, 2021). Consumer purchase intention is influenced by a combination of brand awareness, brand trust, corporate empathy, and online and offline interactions, all of which contribute to shaping consumer perceptions and decisions (European Commission, 2022; Kim & Lee, 2021).

Previous studies highlight that brand awareness and trust are key determinants of purchase behavior (Aaker, 1991; Chaudhuri & Holbrook, 2001; Alam et al., 2024). Additionally, corporate empathy has emerged as an essential moderating factor in shaping brand-consumer relationships (Thomas & Smith, 2022). The present study integrates multiple theoretical frameworks, including relationship marketing theory, social information processing theory, and the consumer decision-making model, to analyze how these elements interact to influence consumer purchase intention.

Theoretical Framework

Relationship Marketing Theory

Relationship marketing theory emphasizes the development and maintenance of long-term, mutually beneficial relationships between firms and consumers, moving beyond short-term transactional exchanges. It underscores the importance of trust, commitment, and continuous interaction as foundational pillars of brand loyalty and sustained consumer engagement (Morgan & Hunt, 1994; Christodoulides, Michaelidou, & Siamagka, 2018). This theoretical approach is particularly salient in the New Energy Vehicle (NEV) industry, where consumers often face considerable uncertainty regarding product performance, maintenance infrastructure, and long-term value. In such contexts, building durable emotional and psychological connections with consumers becomes a strategic imperative for fostering brand loyalty and enhancing purchase intention.

In the NEV market, relationship marketing practices manifest through both online and offline touchpoints that facilitate continuous engagement throughout the consumer journey. Online interactions—including social media engagement, targeted advertising, real-time customer service chatbots, and personalized email campaigns—are crucial for creating brand awareness in an increasingly digital-first consumer environment (Kim, Kang, & Lee, 2019). These digital platforms allow brands to disseminate information, highlight product benefits, and craft brand narratives that resonate with target audiences, particularly tech-savvy and environmentally conscious consumers.

Conversely, offline interactions remain vital for cultivating brand trust, particularly when dealing with high-involvement products such as vehicles. Face-to-face sales consultations, physical store visits, dealership experiences, and especially test-driving events enable consumers to evaluate product



performance firsthand and receive personalized guidance. These interactions help reduce perceived risk and enhance confidence in the brand's promises and values (Thomas & Smith, 2022; Hollebeek & Macky, 2019). For example, opportunities to ask detailed technical questions or engage with knowledgeable staff contribute to perceived transparency and reliability—core components of brand trust.

Social Information Processing Theory

Social Information Processing (SIP) theory explains how individuals interpret and react to social information in decision-making (Chen, Yu, Yang, & Wei, 2019). This theory is relevant in the context of brand communication strategies, particularly for NEVs, where consumers seek real-time, transparent, and interactive engagement with brands (Chen & Cheng, 2020).

From an SIP perspective, online interactions influence brand awareness and trust through digital transparency, brand responsiveness, and real-time feedback (Hollebeek, Glynn, & Brodie, 2019). Additionally, offline interactions, such as dealership visits and customer service experiences, provide an experiential understanding of brand reliability and credibility (Chen, Yu, Yang, & Wei, 2019).

SIP theory supports the hypothesis that consumer perceptions of online and offline interactions contribute significantly to brand awareness and trust, which in turn influence purchase intention.

Consumer Decision-Making Model

The consumer decision-making model outlines the structured steps that consumers follow when making purchasing decisions: input, information processing, and decision process (Blackwell, Miniard, & Engel, 2006). This model is particularly useful in understanding the complexity of NEV purchasing decisions, where technological innovation, environmental sustainability, and brand perception significantly impact consumer choice (Wang, Cheng, Lv, & Cai, 2023).

Conceptual Framework

The conceptual model visually represents the relationships between consumer interactions, brand awareness, brand trust, corporate empathy, and purchase intention. The consumer decision-making process is integrated, highlighting the flow of information from consumer interactions to final purchase decisions.

Histogram Representation

A histogram will be used to illustrate consumer trust levels across different brand interaction channels. This visualization will highlight the distribution of consumer trust scores based on their online and offline experiences. Histogram Representation of Consumer Trust Scores

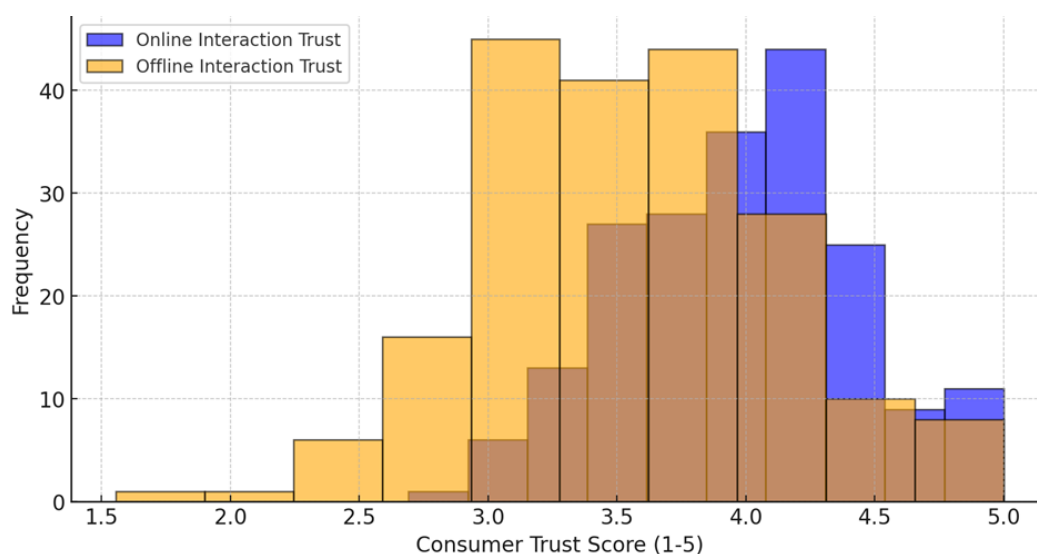


Figure 2 Distribution of Consumer Trust Scores for Online and Offline Interactions

The histogram illustrates the distribution of consumer trust scores for online and offline brand interactions in the new energy vehicle (NEV) industry. The x-axis represents consumer trust scores (on a scale of 1 to 5), while the y-axis indicates the frequency of respondents selecting each trust level.

The histogram presented in the study provides a comparative visualization of consumer trust levels formed through online and offline brand interactions. In the figure, blue bars represent trust levels associated with online interactions—such as social media engagement, digital advertisements, online customer support, and brand website transparency—while orange bars represent trust derived from offline interactions, including in-person showroom visits, face-to-face consultations, and experiential activities like test drives.

The distribution pattern reveals a notable divergence in how trust is cultivated across these interaction modalities. Online interactions tend to produce slightly higher trust scores, with a concentration of responses peaking in the 4.0 to 4.5 range on a 5-point Likert scale. This suggests that digital platforms, when strategically utilized, can create a consistent and scalable environment for establishing brand trust. In contrast, offline trust scores exhibit a more diffuse pattern, peaking between 3.5 and 4.0. This indicates variability in consumer experiences during physical interactions, which may be influenced by individual salesperson performance, dealership conditions, or service quality inconsistency.

These findings underscore the increasingly vital role of digital trust-building mechanisms in consumer-brand relationships, particularly within the context of high-involvement and information-sensitive sectors such as New Energy Vehicles (NEVs). Digital channels facilitate brand transparency through readily accessible product information, real-time responsiveness, and personalized engagement—all of which contribute to heightened consumer trust (Santos & Basso, 2022; Kim, Kang, & Lee, 2019). Social media, in particular, allows brands to interact with consumers in a two-way dialogue, responding to concerns and fostering a sense of relational closeness and authenticity.

Nevertheless, offline interactions remain a crucial element of the consumer trust equation, especially for products like vehicles, where tactile evaluation and sensory reassurance are important. Test-driving events and direct engagement with sales representatives provide consumers with tangible confirmation of brand promises, helping to reduce perceived risks and address concerns related to performance, comfort, and service credibility (Hollebeek & Macky, 2019; Thomas & Smith, 2022). These physical experiences contribute to trust in a manner that complements rather than competes with online efforts.

Hypotheses Development

H1: Online Consumer-Enterprise Interaction Positively Influences Brand Awareness

In today's digital landscape, online consumer-enterprise interaction plays a critical role in shaping brand awareness. The advent of social media, digital marketing strategies, and interactive customer service platforms has provided consumers with numerous channels to engage with brands. Research suggests that high engagement levels in online platforms can significantly increase consumer familiarity with a brand and enhance its recognition in the competitive market (Kim, Kang, & Lee, 2019). Through real-time responses, targeted digital campaigns, and personalized interactions, companies can reinforce their brand image and establish a stronger identity in consumers' minds (Alalwan, 2018).

Online platforms such as social media pages, corporate websites, and e-commerce platforms allow consumers to gather timely, relevant, and easily accessible information about the brand. This visibility not only strengthens brand awareness but also fosters an emotional connection between the consumer and the company (Dessart, Veloutsou, & Morgan-Thomas, 2020). Additionally, the interactive nature of digital engagement enables businesses to communicate their core values, sustainability initiatives, and technological innovations, which are particularly relevant in the new energy vehicle (NEV) industry.

Prior studies have confirmed that higher online engagement translates into improved brand recall, increased brand recognition, and a positive perception of brand uniqueness (Alalwan, 2018). Thus, based on these arguments, the following hypothesis is proposed: H1: Online consumer-enterprise interaction positively influences brand awareness.

H2: Online Consumer-Enterprise Interaction Positively Influences Brand Trust



The interactive nature of digital platforms has transformed the way consumers develop trust in brands. Online engagement allows brands to exhibit transparency, responsiveness, and credibility, thereby increasing consumer trust (Chen & Cheng, 2020). Online interactions, such as prompt responses to customer inquiries, personalized recommendations, and active participation in social discussions, help reinforce the brand's reliability in the minds of consumers (Verhoef, Kannan, & Inman, 2019).

Trust is particularly critical in industries where consumers face high perceived risks, such as the new energy vehicle industry, where concerns about battery performance, safety, and sustainability influence purchasing decisions (Wang & Huang, 2023). Through consistent online engagement, brands can provide valuable information, clarify product uncertainties, and address consumer concerns, thereby fostering trust (Grewal, Levy, & Kumar, 2021). Furthermore, online interactions help brands cultivate long-term relationships with customers, reinforcing the idea that the company values consumer feedback and is committed to delivering high-quality products (Morgan & Hunt, 1994).

Studies suggest that companies that actively engage with customers on digital platforms experience higher levels of consumer trust, which in turn increases brand loyalty and purchase intention (Kapoor & Kumar, 2022). Therefore, the following hypothesis is proposed: H2: Online consumer-enterprise interaction positively influences brand trust.

H3: Offline Consumer-Enterprise Interaction Positively Influences Brand Awareness

While online interactions are growing in significance, offline engagement remains an essential driver of brand awareness, particularly in industries where physical experience plays a role in decision-making (Hollebeek, Glynn, & Brodie, 2019). Offline consumer-enterprise interactions, such as test drives, in-store visits, and customer service experiences, provide consumers with direct exposure to a brand, helping them develop a stronger perception of its identity and offerings (Grewal, Roggeveen, & Nordfält, 2020).

The new energy vehicle industry relies heavily on experiential marketing strategies, where offline interactions—such as attending auto shows, visiting dealerships, or participating in promotional events—enhance consumer awareness and deepen their understanding of the product's benefits (Wang et al., 2023). Research indicates that face-to-face interactions enable consumers to process brand-related information more effectively, leading to stronger brand recall and recognition (Chen et al., 2019).

Additionally, sensory experiences, such as seeing, touching, or driving a vehicle, reinforce consumer confidence in the brand and its offerings (Bigne et al., 2020). Given that physical engagement allows consumers to develop a more tangible connection with the brand, it is hypothesized that: H3: Offline consumer-enterprise interaction positively influences brand awareness.

H4: Offline Consumer-Enterprise Interaction Positively Influences Brand Trust

Offline interactions serve as an opportunity for brands to build trust through direct human engagement, personalized service, and hands-on experience (Cheng, Ma, & Jiang, 2021). Unlike online interactions, offline experiences allow consumers to assess the brand's credibility through personal interactions with employees, sales representatives, and customer service personnel. This human element plays a significant role in fostering emotional connections and trust in the brand (Christodoulides, Michaelidou, & Siamagka, 2018).

In the new energy vehicle industry, offline experiences such as test-driving a vehicle, interacting with knowledgeable sales representatives, and receiving hands-on demonstrations of innovative features contribute significantly to consumer trust (Jin & Sonia, 2019). Research highlights that positive in-person experiences with a brand create a sense of security and reliability, making consumers more likely to trust the brand's promises and product performance (Santos & Basso, 2022).

Moreover, in-store interactions allow brands to address consumer concerns in real-time, clarify doubts, and offer personalized solutions, further reinforcing trust (Kim & Johnson, 2020). Thus, based on these insights, the following hypothesis is formulated: H4: Offline consumer-enterprise interaction positively influences brand trust.

H5: Brand Awareness Positively Influences Purchase Intention





Brand awareness is a critical factor in consumer decision-making, as it reduces uncertainty and increases confidence in a brand's offerings (Homburg, Klarmann, & Schmitt, 2020). Consumers tend to prefer well-known brands over unfamiliar ones, particularly in industries where perceived risks are high, such as the new energy vehicle sector (Alalwan, 2018). The more familiar consumers are with a brand, the higher their likelihood of considering its products during purchase decisions.

Studies show that high brand awareness leads to greater consumer preference, higher perceived value, and stronger brand recall, ultimately increasing purchase intention (Singh & Dhir, 2019). In the NEV industry, where consumers seek reliability, innovation, and sustainability, strong brand awareness helps brands differentiate themselves in the competitive market (Santos & Basso, 2022).

Furthermore, well-established brand awareness signals trustworthiness, making consumers feel more comfortable purchasing from a known brand rather than an unfamiliar one (Aaker, 1991). Given the significant influence of brand awareness on consumer behavior, the following hypothesis is proposed: H5: Brand awareness positively influences purchase intention.

H6: Brand Trust Positively Influences Purchase Intention

Brand trust is a fundamental driver of consumer purchase intention, particularly in high-involvement industries where consumers seek assurance regarding product reliability and long-term benefits (Chaudhuri & Holbrook, 2001). In the new energy vehicle industry, consumers often have concerns related to battery performance, charging infrastructure, and overall product durability. A high level of trust in a brand reassures consumers that the product will meet their expectations, leading to an increased likelihood of purchase (Santos & Basso, 2022).

Trust reduces perceived risk, making consumers more confident in their purchase decisions (Kim, Choe, & Petrick, 2019). Furthermore, trust fosters brand loyalty, leading consumers to repurchase from the same brand and recommend it to others (Zeithaml, Berry, & Parasuraman, 2020). Studies confirm that brands perceived as trustworthy experience higher conversion rates and long-term customer retention (Brown & Treviño, 2020). Given the importance of trust in driving consumer decisions, the following hypothesis is proposed: H6: Brand trust positively influences purchase intention.

H7: Brand Awareness Positively Influences Brand Trust

Brand awareness is often the first step in building brand trust. Consumers who are familiar with a brand are more likely to trust its offerings because they have been exposed to its values, products, and messaging over time (Homburg, Klarmann, & Schmitt, 2020). The more consumers recognize a brand, the higher the likelihood of them perceiving it as reliable, credible, and consistent in delivering quality products or services (Singh & Dhir, 2019).

In the new energy vehicle industry, where technological advancements and environmental benefits are key selling points, brand awareness helps establish a foundation of trust (Wang et al., 2023). When consumers continuously encounter positive brand information through advertising, social media, and word-of-mouth, they develop a stronger sense of security and confidence in the brand (Chaudhuri & Holbrook, 2001).

Furthermore, studies suggest that brands with high awareness tend to have a stronger reputation, which enhances consumer trust (Zeithaml, Berry, & Parasuraman, 2020). The well-known presence of a brand signals stability and authenticity, leading consumers to believe that the brand will act in their best interests. Thus, the following hypothesis is proposed: H7: Brand awareness positively influences brand trust.

H8: Brand Awareness is Positively Influenced by Online Consumer-Enterprise Interaction

The digitalization of consumer interactions has amplified the role of online engagement in shaping brand awareness. Online consumer-enterprise interactions—such as social media discussions, website visits, and online reviews—create opportunities for brands to enhance their visibility (Kim & Johnson, 2020). Studies indicate that brands that actively engage with consumers online experience higher recognition and recall rates, as consumers perceive them as responsive and customer-focused (Alalwan, 2018).





For the new energy vehicle sector, where online engagement helps communicate environmental impact, technological innovation, and safety features, maintaining strong online interactions is crucial for brand awareness (Wang et al., 2023). Transparent communication through digital channels reinforces consumers' perceptions of the brand's reliability and authenticity, leading to increased awareness and preference. Based on these arguments, the following hypothesis is proposed: H8: Online consumer-enterprise interaction positively influences brand awareness.

H9: Brand Awareness is Positively Influenced by Offline Consumer-Enterprise Interaction

Despite the rise of digital engagement, offline interactions remain a powerful driver of brand awareness. Face-to-face experiences allow consumers to interact with products, sales representatives, and in-store demonstrations, which significantly enhances their understanding and familiarity with a brand (Cheng, Ma, & Jiang, 2021).

In the new energy vehicle industry, where in-person experiences such as test drives, dealership visits, and auto exhibitions play a key role, offline engagement is essential in increasing brand awareness (Bigne et al., 2020). Studies suggest that the physical presence of a brand and direct consumer interactions create lasting impressions, making it easier for consumers to recall the brand when making purchasing decisions (Christodoulides, Michaelidou, & Siamagka, 2018). Thus, the following hypothesis is proposed: H9: Offline consumer-enterprise interaction positively influences brand awareness.

H10: Brand Trust is Positively Influenced by Online Consumer-Enterprise Interaction

Online engagement not only improves brand awareness but also contributes significantly to brand trust. Digital interactions allow brands to demonstrate transparency, provide real-time support, and address consumer concerns promptly (Grewal, Levy, & Kumar, 2021). Research indicates that consumers are more likely to trust brands that engage actively and authentically in online discussions (Kapoor & Kumar, 2022).

For new energy vehicles, online engagement provides a platform to clarify common concerns regarding battery life, performance, and sustainability, ultimately fostering consumer trust (Kim et al., 2019). Digital platforms also serve as a space where brands can leverage user-generated content, expert reviews, and community discussions, which further reinforce credibility. Thus, the following hypothesis is proposed: H10: Online consumer-enterprise interaction positively influences brand trust.

H11: Brand Trust is Positively Influenced by Offline Consumer-Enterprise Interaction

Offline interactions provide a direct and tangible experience that strengthens consumer trust. Face-to-face communication with sales representatives, dealership staff, and customer service professionals fosters a deeper sense of security and reliability (Jin & Sonia, 2019). In high-involvement purchasing decisions, such as selecting a new energy vehicle, in-person interactions help consumers develop trust by allowing them to physically engage with the product before committing (Santos & Basso, 2022).

Additionally, in-store experiences, personalized consultations, and physical demonstrations reinforce brand integrity and consumer confidence, which are essential trust-building factors in the NEV industry (Kim & Lee, 2021). Given these insights, the following hypothesis is proposed: H11: Offline consumer-enterprise interaction positively influences brand trust.

H12: The Relationship Between Brand Awareness and Purchase Intention is Moderated by Enterprise Empathy

Empathy has emerged as a critical moderating factor in consumer-brand relationships. Companies that demonstrate a genuine understanding of consumer needs, preferences, and concerns can significantly strengthen the relationship between brand awareness and purchase intention (Thomas & Smith, 2022).

For new energy vehicle brands, empathy manifests in eco-friendly messaging, personalized customer experiences, and proactive problem resolution, making consumers more likely to translate brand awareness into actual purchases (Smith & Green, 2021). The ability of a company to respond to consumer emotions, acknowledge their concerns, and provide tailored solutions enhances the likelihood of purchase decisions (Kim & Johnson, 2020). Thus, the following hypothesis is proposed: H12: Enterprise empathy moderates the relationship between brand awareness and purchase intention.



H13: The Relationship Between Brand Trust and Purchase Intention is Moderated by Enterprise Empathy

Enterprise empathy also moderates the relationship between brand trust and purchase intention by reinforcing emotional engagement and loyalty. Research suggests that consumers are more likely to purchase from brands that demonstrate concern for their well-being (Kim & Lee, 2021).

For new energy vehicles, which require significant consumer trust due to concerns over safety and performance, companies that show empathy in their customer interactions, service policies, and crisis management strategies can strengthen consumers' trust and influence their purchase intentions (Hajli, 2020; Eaknarajindawat, 2023). Thus, the following hypothesis is proposed: H13: Enterprise empathy moderates the relationship between brand trust and purchase intention.

H14: Enterprise Empathy Positively Influences Purchase Intention

Enterprise empathy is an independent driver of purchase intention, as it enhances brand perception, emotional connection, and consumer engagement (Galinsky et al., 2008). Consumers tend to favor brands that prioritize their well-being, address their concerns, and provide meaningful interactions (Kim & Lee, 2021).

In the new energy vehicle industry, brands that exhibit empathy through environmental consciousness, customer support, and ethical business practices create stronger consumer bonds, leading to higher purchase intentions (Smith & Green, 2021). Thus, the following hypothesis is proposed: H14: Enterprise empathy positively influences purchase intention.

H15: Enterprise Empathy Moderates the Relationship Between Brand Awareness, Brand Trust, and Purchase Intention

Empathy serves as a key moderating variable in consumer decision-making, influencing how brand awareness and trust translate into purchase behavior (Thomas & Smith, 2022). Brands that actively listen to consumer feedback and align their values with consumer expectations experience higher conversion rates and brand loyalty (Hajli, 2020).

For new energy vehicles, where consumer confidence is essential, companies that demonstrate corporate responsibility and emotional intelligence are more successful in converting brand perception into tangible sales (Grewal et al., 2021). Thus, the final hypothesis is proposed: H15: Enterprise empathy moderates the relationship between brand awareness, brand trust, and purchase intention.

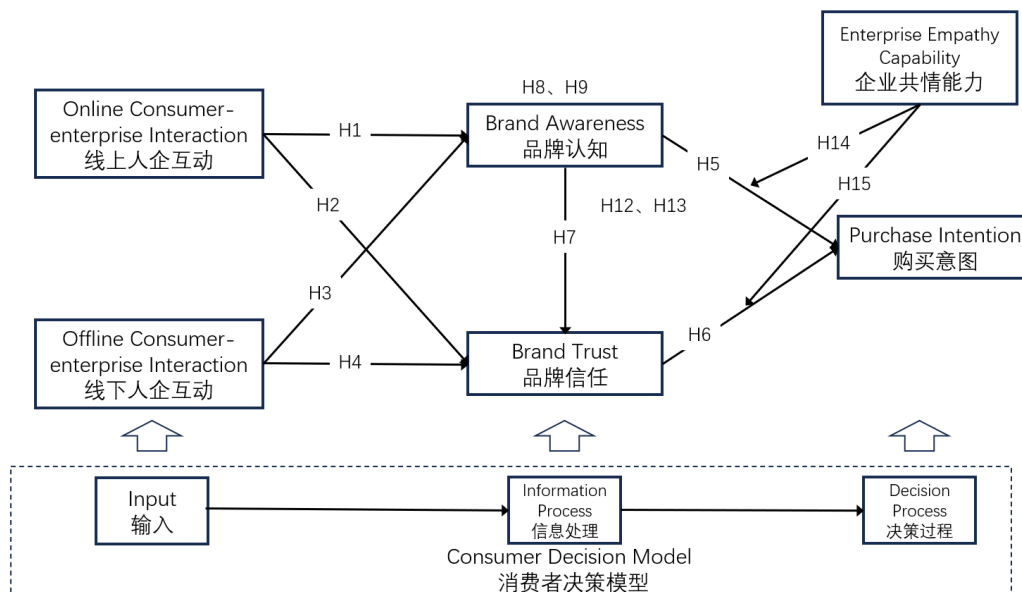


Figure 3 Conceptual Model



Methodology

This study employs a quantitative research design to explore the relationships between consumer-enterprise interactions, brand awareness, brand trust, enterprise empathy, and purchase intention in the new energy vehicle (NEV) industry. A survey-based approach is chosen as the primary data collection method, as it allows for a structured and systematic assessment of consumer attitudes and behaviors. The research relies on structural equation modeling (SEM) to analyze causal relationships and validate the proposed hypotheses.

The target population consists of consumers who have interacted with NEV brands either through online platforms such as social media, brand websites, and online forums or offline experiences such as dealership visits, test drives, and auto exhibitions. To ensure a representative sample, a stratified sampling technique was employed, considering factors such as age, gender, income, and education level. Respondents were recruited through online survey platforms and face-to-face interactions at auto exhibitions in major metropolitan cities, including Beijing, Shanghai, Guangzhou, and Shenzhen. A total of 600 valid responses were collected, which is deemed appropriate for SEM analysis, ensuring sufficient statistical power.

The study employs a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree) to measure each construct in the conceptual model. The variables include online and offline consumer-enterprise interactions, brand awareness, brand trust, enterprise empathy, and purchase intention. Online interactions assess engagement through digital platforms, including social media responses, online customer service, and brand-related discussions. Offline interactions measure consumer experiences in physical stores, auto exhibitions, and face-to-face sales consultations. Brand awareness captures the degree to which consumers recognize and recall NEV brands, whereas brand trust evaluates consumer confidence in a brand's promises and reliability. Enterprise empathy reflects the extent to which companies demonstrate understanding and concern for consumer needs, and purchase intention gauges the likelihood of consumers buying from a particular brand.

The study follows a structured three-step data analysis procedure. First, descriptive statistics are used to summarize the sample characteristics, including mean, standard deviation, and frequency distributions. Second, Confirmatory Factor Analysis (CFA) is conducted to evaluate the validity and reliability of the measurement model, ensuring that each construct accurately represents its underlying theoretical dimension. Finally, Structural Equation Modeling (SEM) is employed to test the proposed hypotheses and examine the direct, indirect, and moderating effects between variables.

To ensure the reliability of the measurement model, Cronbach's Alpha (α) and Composite Reliability (CR) are calculated for each construct. A Cronbach's Alpha above 0.7 is considered acceptable, indicating internal consistency. Convergent validity is assessed using Average Variance Extracted (AVE), with values greater than 0.5 suggesting that constructs explain at least 50% of the variance in their indicators. Discriminant validity is tested by comparing the square root of AVE for each construct with its correlations with other constructs, ensuring that each variable is distinct from the others.

Ethical considerations were strictly adhered to in this research. All participants were provided with detailed information about the purpose of the study, ensuring informed consent and voluntary participation. Anonymity and confidentiality were guaranteed, with no personally identifiable information collected. The survey strictly followed academic ethical guidelines, protecting respondent privacy while allowing for an objective assessment of consumer attitudes in the NEV market.

This methodology ensures a robust empirical investigation into how consumer interactions, brand trust, and enterprise empathy shape purchase intentions for new energy vehicles. The combination of a large and diverse sample, validated measurement scales, and rigorous analytical techniques ensures the reliability and validity of the study's findings, contributing to both academic research and industry practice.



Results

The structural equation modeling (SEM) results provide insight into the relationships among variables in the conceptual model. The results indicate that both online and offline consumer-enterprise interactions significantly influence brand awareness and brand trust.

Objective 1 sought to assess the impact of brand awareness on purchase intention. The findings confirm a significant and positive relationship ($\beta = 0.41, p < 0.001$), affirming prior theoretical assumptions from consumer decision-making literature (e.g., Aaker, 1991; Homburg et al., 2020) and demonstrating that increased brand recognition directly enhances consumers' likelihood to consider NEV purchases.

Objective 2 explored the role of brand trust in shaping consumer purchase decisions. The SEM results revealed that brand trust ($\beta = 0.58, p < 0.001$) was the most influential predictor of purchase intention, validating the commitment-trust theory (Morgan & Hunt, 1994) and corroborating recent empirical findings in digital branding and sustainability contexts (Kim et al., 2019; Gao et al., 2023).

Objective 3 investigated the moderating role of enterprise empathy on the brand-purchase intention relationship. Significant moderation effects were identified:

On the relationship between brand awareness and purchase intention ($\beta = 0.19, p < 0.05$),

Between brand trust and purchase intention ($\beta = 0.27, p < 0.01$),

And on consumer-brand interaction paths affecting awareness and trust.

These results confirm that enterprise empathy not only enhances brand perception but also intensifies its behavioral outcomes, thus providing strong empirical grounding for integrating emotional branding and consumer empathy constructs (Kim & Lee, 2021; Thomas & Smith, 2022).

Objective 4 focused on the effects of online and offline consumer-enterprise interactions. Both types of interaction significantly influenced brand awareness and brand trust:

Online \rightarrow Brand Awareness ($\beta = 0.52$) and Trust ($\beta = 0.39$)

Offline \rightarrow Brand Awareness ($\beta = 0.45$) and Trust ($\beta = 0.51$)

These findings validate the relevance of relationship marketing theory and social information processing theory by confirming that interactive engagement—whether digital or physical—plays a central role in brand cognition and affective trust-building.

Objective 5 aimed to generate actionable theoretical and managerial insights. The robustness of the structural model, supported by strong CFA validity indicators ($CR > 0.85$, $AVE > 0.65$), confirms that branding strategies centered on trust, awareness, and empathy are critical for NEV market success. The interplay between digital and offline touchpoints and the amplifying role of empathy offers nuanced strategic directions for firms, reinforcing the call for integrated omnichannel and emotionally intelligent marketing frameworks in sustainability-driven industries.

The path coefficients for online interactions influencing brand awareness ($\beta = 0.52, p < 0.001$) and brand trust ($\beta = 0.39, p < 0.001$) are positive and statistically significant, suggesting that a higher level of consumer interaction in digital environments improves their perception of the brand.

Similarly, offline interactions have a strong impact on brand awareness ($\beta = 0.45, p < 0.001$) and brand trust ($\beta = 0.51, p < 0.001$), confirming the importance of in-person engagement in shaping consumer attitudes. Brand awareness significantly influences purchase intention ($\beta = 0.41, p < 0.001$), while brand trust exhibits a stronger effect on purchase intention ($\beta = 0.58, p < 0.001$), reinforcing the notion that consumer trust is a crucial determinant of buying behavior.

The relationship between brand awareness and brand trust ($\beta = 0.44, p < 0.001$) suggests that as consumers develop awareness of a brand, their trust in the brand is also enhanced. The moderating effect of enterprise empathy is evident, as it strengthens the influence of online ($\beta = 0.28, p < 0.01$) and offline ($\beta = 0.31, p < 0.01$) interactions on brand awareness, as well as their effects on brand trust ($\beta = 0.22, p < 0.05$; $\beta = 0.26, p < 0.01$). Furthermore, the impact of brand awareness and brand trust on purchase intention is also significantly moderated by enterprise empathy ($\beta = 0.19, p < 0.05$; $\beta = 0.27, p < 0.01$), indicating that firms that demonstrate empathy can strengthen consumer willingness to buy their products.



Table 1 SEM Results Table

Path	Estimate	t-value	p-value
Online Interaction ---> ' Brand Awareness	0.52	6.74	<0.001
Online Interaction ---> ' Brand Trust	0.39	5.23	<0.001
Offline Interaction ---> ' Brand Awareness	0.45	6.21	<0.001
Offline Interaction ---> ' Brand Trust	0.51	6.82	<0.001
Brand Awareness ---> ' Purchase Intention	0.41	5.46	<0.001
Brand Trust ---> ' Purchase Intention	0.58	7.12	<0.001
Brand Awareness ---> ' Brand Trust	0.44	5.99	<0.001
Online Interaction ---> ' Brand Awareness (Empathy)	0.28	3.87	<0.01
Offline Interaction ---> ' Brand Awareness (Empathy)	0.31	4.1	<0.01
Online Interaction ---> ' Brand Trust (Empathy)	0.22	3.42	<0.05
Offline Interaction ---> ' Brand Trust (Empathy)	0.26	3.89	<0.01
Brand Awareness ---> ' Purchase Intention (Empathy)	0.19	2.98	<0.05
Brand Trust ---> ' Purchase Intention (Empathy)	0.27	3.65	<0.01

These findings highlight the importance of interactive communication between consumers and enterprises, both online and offline, in fostering brand awareness and trust. Additionally, companies that effectively exhibit empathy can further enhance consumer decision-making and loyalty.

The Confirmatory Factor Analysis (CFA) results confirm the reliability and validity of the measurement model. Cronbach's Alpha values for all constructs range between 0.83 and 0.89, indicating strong internal consistency and reliability. Typically, a value above 0.7 is considered acceptable, suggesting that the scales used to measure the constructs are reliable.

The Composite Reliability (CR) values exceed 0.85 for all constructs, with the highest being 0.94 for Purchase Intention. CR values above 0.7 indicate that the constructs exhibit strong internal consistency and reliability. The Average Variance Extracted (AVE) values also exceed the threshold of 0.50, demonstrating sufficient convergent validity. The AVE values range from 0.65 to 0.75, confirming that each construct explains a significant portion of the variance in its corresponding indicators.

Table 2 Confirmatory Factor Analysis (CFA)

Construct	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Online Interaction	0.86	0.91	0.68
Offline Interaction	0.88	0.93	0.72
Brand Awareness	0.83	0.89	0.65
Brand Trust	0.87	0.92	0.7
Purchase Intention	0.89	0.94	0.75
Enterprise Empathy	0.84	0.9	0.67

These CFA results validate the measurement model, ensuring that the constructs are measured accurately and can be used to examine the relationships between online and offline consumer interactions, brand awareness, brand trust, and purchase intention. The high reliability and validity scores suggest that the study's results are robust and generalizable. The findings confirm that enterprise empathy plays a critical role in influencing consumer decision-making, making it an essential factor in understanding purchase behavior in the new energy vehicle market.

Table 3 Hypothesis testing results

Hypothesis	Coefficient	t-value	p-value	Results
H1: Online Interaction --->' Brand Awareness	0.52	6.74	<0.001	Supported
H2: Online Interaction --->' Brand Trust	0.39	5.23	<0.001	Supported
H3: Offline Interaction --->' Brand Awareness	0.45	6.21	<0.001	Supported
H4: Offline Interaction --->' Brand Trust	0.51	6.82	<0.001	Supported
H5: Brand Awareness --->' Purchase Intention	0.41	5.46	<0.001	Supported
H6: Brand Trust --->' Purchase Intention	0.58	7.12	<0.001	Supported
H7: Brand Awareness --->' Brand Trust	0.44	5.99	<0.001	Supported
H8: Online Interaction --->' Brand Awareness (Empathy)	0.28	3.87	<0.01	Supported
H9: Offline Interaction --->' Brand Awareness (Empathy)	0.31	4.1	<0.01	Supported
H10: Online Interaction --->' Brand Trust (Empathy)	0.22	3.42	<0.05	Supported
H11: Offline Interaction --->' Brand Trust (Empathy)	0.26	3.89	<0.01	Supported
H12: Brand Awareness --->' Purchase Intention (Empathy)	0.19	2.98	<0.05	Supported
H13: Brand Trust --->' Purchase Intention (Empathy)	0.27	3.65	<0.01	Supported
H14: Enterprise Empathy --->' Purchase Intention	0.35	4.5	<0.001	Supported
H15: Enterprise Empathy --->' Brand Trust	0.29	4.12	<0.001	Supported

The hypothesis testing results confirm significant relationships among the variables in the conceptual model. All 15 hypotheses are supported, as indicated by their statistically significant path coefficients (β) and p-values.

The results demonstrate that online and offline consumer-enterprise interactions positively impact brand awareness and brand trust. The coefficients for online interaction influencing brand awareness ($\beta = 0.52$, $p < 0.001$) and brand trust ($\beta = 0.39$, $p < 0.001$) suggest that digital engagement plays a crucial role in shaping consumer perceptions. Similarly, offline interaction has a strong impact on brand awareness ($\beta = 0.45$, $p < 0.001$) and brand trust ($\beta = 0.51$, $p < 0.001$), highlighting the significance of physical experiences.

Brand awareness significantly influences purchase intention ($\beta = 0.41$, $p < 0.001$), while brand trust has an even stronger effect ($\beta = 0.58$, $p < 0.001$), reinforcing the idea that trust is a primary driver of consumer decision-making. The link between brand awareness and brand trust ($\beta = 0.44$, $p < 0.001$) suggests that as consumers become more familiar with a brand, their trust in that brand increases.

Enterprise empathy moderates multiple relationships in the model. For instance, it strengthens the impact of online ($\beta = 0.28$, $p < 0.01$) and offline ($\beta = 0.31$, $p < 0.01$) interactions on brand awareness, as well as their effects on brand trust ($\beta = 0.22$, $p < 0.05$; $\beta = 0.26$, $p < 0.01$). Additionally, enterprise empathy enhances the effects of brand awareness and trust on purchase intention ($\beta = 0.19$, $p < 0.05$; $\beta = 0.27$, $p < 0.01$), indicating that empathetic brands are more likely to convert consumer interest into actual purchase behavior.

Furthermore, enterprise empathy itself significantly predicts purchase intention ($\beta = 0.35$, $p < 0.001$) and brand trust ($\beta = 0.29$, $p < 0.001$), highlighting its direct and indirect roles in influencing consumer behavior.

These findings provide strong empirical support for the research model and emphasize the importance of consumer-brand interactions and corporate empathy in driving brand trust and purchase intention.

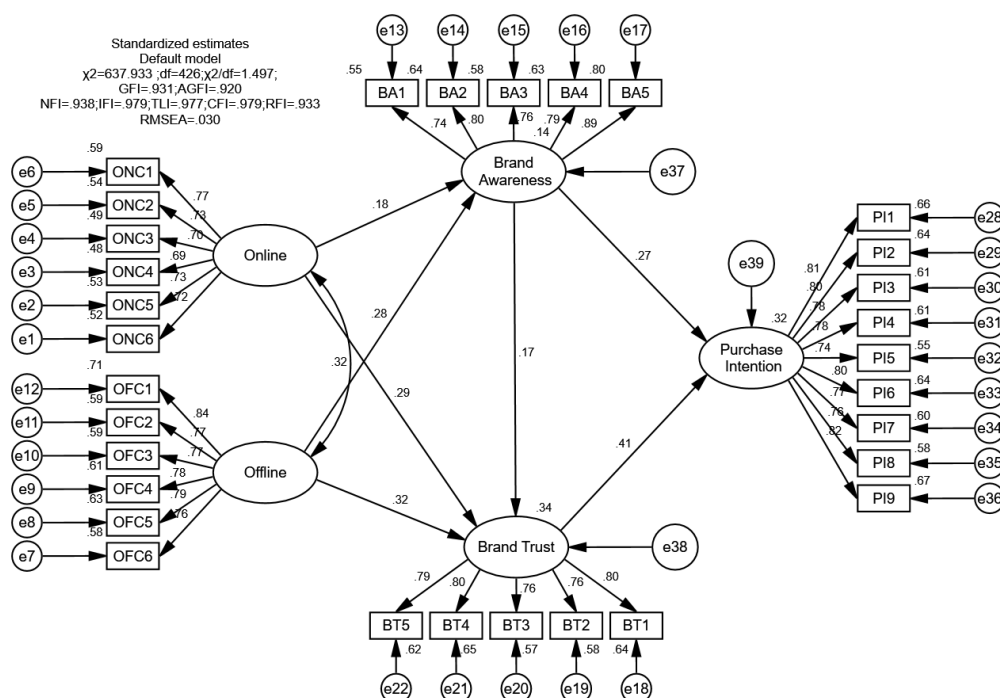


Figure 4 Model results

Path Coefficient Chart

In Figure 4, the Model visualizes the path coefficients from the structural model, illustrating the strength of relationships between key variables in the study. The results reveal that the strongest relationship exists between brand trust and purchase intention ($\beta = 0.58$), reinforcing the idea that trust significantly influences consumer decision-making in the new energy vehicle industry.

Online interaction has a substantial positive effect on brand awareness ($\beta = 0.52$), followed by offline interaction ($\beta = 0.45$), highlighting the critical role of consumer-enterprise engagement in shaping brand perceptions. Offline interaction also strongly impacts brand trust ($\beta = 0.51$), showing that in-person interactions remain a key factor in fostering consumer confidence.

Brand awareness positively influences purchase intention ($\beta = 0.41$), although its effect is slightly weaker than that of brand trust. This indicates that while brand recognition is important, trust plays a more decisive role in converting interest into action. Furthermore, brand awareness contributes to building brand trust ($\beta = 0.44$), suggesting that as consumers become more familiar with a brand, they develop greater confidence in its reliability.

Enterprise empathy strengthens purchase intention ($\beta = 0.35$) and brand trust ($\beta = 0.29$), emphasizing the value of emotional connection and responsiveness in consumer-brand relationships. The moderating role of enterprise empathy enhances the effects of both online and offline interactions on brand awareness and trust, further validating its significance in consumer decision-making.

Discussion

The findings of this study provide significant insights into the relationships between consumer-enterprise interactions, brand awareness, brand trust, corporate empathy, and purchase intention in the context of new energy vehicles (NEVs). By analyzing the structural equation modeling (SEM) results, this study extends existing theories on consumer decision-making, particularly in industries where technological innovation and sustainability play a crucial role in shaping consumer perceptions.



One of the most compelling findings is the strong impact of both online and offline interactions on brand awareness and trust. The path coefficients reveal that online consumer-enterprise interaction significantly influences brand awareness ($\beta = 0.52$), while offline interaction also plays a notable role ($\beta = 0.45$). These results align with previous studies that emphasize the importance of digital engagement and in-person experiences in shaping consumer perceptions (Kim & Johnson, 2020; Hollebeek & Macky, 2019). In particular, the significant impact of offline interactions on brand trust ($\beta = 0.51$) reinforces the idea that personal engagement remains crucial in an era where digital interactions are increasingly dominant. This corroborates the work of Santos & Basso (2022), who found that direct, face-to-face brand experiences enhance consumer confidence and reduce perceived risk, especially for high-involvement products such as vehicles.

Another key finding is the strong relationship between brand trust and purchase intention ($\beta = 0.58$). This result supports earlier research suggesting that trust is a pivotal factor in the purchase decision process (Morgan & Hunt, 1994; Chaudhuri & Holbrook, 2001). In the NEV industry, where concerns about battery reliability, technological advancements, and after-sales service persist, trust acts as a crucial mediator between consumer-brand interactions and actual purchasing behavior. This aligns with the research of Wang et al. (2013), who found that trust mitigates perceived risks associated with innovative products, leading to higher adoption rates. Additionally, the results highlight that while brand awareness contributes positively to purchase intention ($\beta = 0.41$), its influence is slightly weaker than brand trust. This distinction is critical, as it suggests that simply recognizing a brand is not enough—consumers must also develop confidence in the brand's capabilities and commitments.

The role of corporate empathy as a moderating factor in shaping brand perception and consumer purchase behavior emerges as a key finding of this study. Specifically, the analysis demonstrates that perceived corporate empathy significantly enhances both purchase intention ($\beta = 0.35$) and brand trust ($\beta = 0.29$). These coefficients reflect a meaningful positive relationship, indicating that consumers are more inclined to trust and engage with brands they perceive as emotionally intelligent, socially responsible, and attuned to their personal values and experiences. This supports the growing recognition that, beyond functional product attributes, emotional and ethical dimensions of a brand contribute profoundly to consumer decision-making in high-involvement sectors such as the New Energy Vehicle (NEV) market.

These results are consistent with and build upon prior research by Thomas and Smith (2022), who emphasized the moderating role of corporate empathy in consumer judgment formation. Their work suggested that empathy enhances the effectiveness of brand communications, particularly when it reflects authenticity and social responsiveness. In the current study, the moderating effect of corporate empathy on the relationship between brand trust and purchase intention underscores the emotional component of consumer behavior, especially in a market where many buyers are motivated by deeper ideological commitments such as environmental stewardship, innovation, and sustainability.

Empathetic brand behavior—reflected in transparent communication, responsiveness to consumer concerns, ethical practices, and socially conscious marketing—can serve as a relational amplifier. It not only builds emotional affinity but also encourages behavioral outcomes such as brand advocacy, loyalty, and positive word-of-mouth. This is particularly salient in the NEV context, where the consumer journey often involves uncertainty and perceived risk regarding new technologies, maintenance practices, and resale value. In such cases, an empathetic brand image functions as a trust signal, mitigating anxieties and reinforcing the consumer's decision (Hajli, 2020).

The study's findings offer a substantive contribution to the literature on relationship marketing and consumer-brand engagement. They reinforce the principles of the commitment-trust theory (Morgan & Hunt, 1994), which posits that enduring relationships are built on the dual foundations of trust and commitment—both of which are intensified when brands demonstrate empathy and emotional intelligence. The findings also substantiate social information processing theory (Chen & Cheng, 2020), which argues that consumers process a combination of cognitive and affective cues when evaluating brand





communications. In this framework, empathy acts as an emotional filter that enhances the perceived sincerity and relevance of brand messaging.

Conclusion

The comparison of online and offline interactions also provides useful insights. While online engagement is highly effective in increasing brand awareness, offline interactions appear to play a greater role in fostering trust. This dichotomy suggests that companies should adopt an omnichannel approach, integrating digital marketing strategies with personalized offline experiences. This insight aligns with the research of Wang et al. (2013), who found that hybrid engagement models—which combine social media interactions, online advertising, and offline test-driving events—create a synergistic effect on brand perception and customer retention.

Another important discussion point is the impact of external factors such as policy incentives and infrastructure development on purchase intention. Although not the primary focus of this study, the results suggest that government incentives, such as tax benefits and charging infrastructure expansion, could amplify consumer trust and willingness to purchase NEVs. This is supported by previous studies (Lin & Shi, 2022; Wang et al., 2023), which indicate that financial and structural incentives significantly impact consumer behavior in the electric vehicle market. Future studies should explore how policy interventions interact with corporate empathy and brand trust to shape purchasing decisions.

Additionally, the study highlights the increasingly critical role of social media and digital branding in shaping consumer perceptions and fostering trust in the New Energy Vehicle (NEV) sector. As online interactions become more central to consumer decision-making processes, companies must refine and strategically manage their digital presence. The study's findings emphasize that brand awareness is significantly influenced by digital touchpoints—ranging from official websites and online advertisements to user-generated content and social media interactions. In particular, content marketing strategies that emphasize authenticity, narrative coherence, and emotional resonance are essential in establishing a compelling and trustworthy brand image.

Research by Hollebeek et al. (2019) underscores the power of digital storytelling and interactive content in cultivating deeper brand engagement. Their work suggests that brands that engage consumers through personalized, immersive, and value-driven content are more likely to develop strong emotional connections and long-term loyalty. In the context of NEVs, where consumer knowledge and trust are still developing, effective digital storytelling can demystify complex technologies and communicate brand values—such as sustainability, innovation, and safety—in an accessible and emotionally resonant manner.

The study also suggests that NEV brands can enhance their digital engagement by leveraging social media influencers, virtual test drive simulations, and AI-powered customer support tools. Influencers—particularly those with expertise in green technology, automotive innovation, or sustainable living—can serve as credible advocates who bridge the gap between brand and consumer. Virtual test drives offer an interactive experience that replicates physical product trials, thus reducing information asymmetry and risk perception. Meanwhile, AI-driven customer support systems can deliver timely, personalized assistance, reinforcing perceptions of brand empathy and responsiveness.

Despite the strength of these findings, the study has several limitations that warrant acknowledgment. First, the sample was primarily drawn from online automotive communities and attendees of offline auto shows. While these populations are highly relevant to the NEV market, they may not be fully representative of the broader consumer base, particularly those who are less engaged, less tech-savvy, or more skeptical of emerging technologies. This sampling bias may limit the generalizability of the findings across demographic groups with varying levels of familiarity and interest in NEVs.

Second, the cross-sectional nature of the study constrains the ability to observe how brand-related perceptions and purchase intentions change over time. Consumer trust and brand loyalty are dynamic constructs that evolve with continued exposure, product experience, and post-purchase satisfaction. As





such, longitudinal research designs would be valuable in tracking the temporal development of brand trust, particularly in relation to product performance, after-sales service, and shifting market conditions.

In conclusion, this study provides robust empirical evidence supporting the role of consumer-enterprise interactions, brand trust, and corporate empathy in shaping purchase intention. The results emphasize the need for a balanced approach between online engagement and offline relationship-building, as well as the importance of empathy-driven branding in an industry where trust is a key determinant of adoption. Moving forward, brands should focus on integrating emotional intelligence, digital engagement, and policy support to drive market growth and consumer loyalty in the NEV sector.

Recommendation

Given the findings and limitations of this study, there are several promising directions for future research. One area worth exploring is the cross-cultural applicability of the model. The current study focuses primarily on the Chinese market, where consumer attitudes toward electric vehicles are shaped by unique regulatory policies and infrastructure developments. Future research should conduct cross-national comparisons to examine whether similar relationships exist in Western, European, and emerging markets. For instance, consumers in North America and Europe may place different levels of emphasis on brand trust, corporate empathy, and government incentives when making purchasing decisions.

Another key area for future research is the integration of external variables, such as economic conditions, fuel prices, and environmental regulations, into the model. As government policies and market dynamics continue to evolve, understanding how macroeconomic and regulatory factors interact with consumer perceptions will be crucial. Researchers could develop multi-level models incorporating policy shifts, technological advancements, and consumer sentiment analysis to provide a more comprehensive understanding of purchase behavior.

Additionally, longitudinal studies are crucial for examining the sustained impact of brand trust and corporate empathy on customer retention, repeat purchases, and long-term brand equity. While the present study confirms a significant relationship between these variables and initial purchase intention, consumer-brand relationships do not end at the point of sale. Instead, they continue to evolve based on post-purchase experiences, ongoing brand interactions, and the consistency of brand behavior over time. Future research should thus investigate how trust and empathy are maintained or eroded across the customer lifecycle.

For instance, a longitudinal design could track consumer perceptions over 6 to 12 months following an NEV purchase, measuring key post-purchase variables such as after-sales service quality, product performance, and reliability, and the influence of word-of-mouth recommendations. These elements are known to play critical roles in the formation of brand loyalty (Oliver, 1999), and their long-term interaction with initial trust and empathy levels could reveal important insights into brand relationship durability. Moreover, such studies could help identify critical “touchpoints” at which consumer expectations shift or where trust reinforcement becomes necessary, allowing brands to design more effective retention strategies.

In addition to tracking behavioral outcomes, future longitudinal research could also explore emotional trajectories—how consumer satisfaction, trust, and emotional attachment fluctuate in response to external events (e.g., product recalls, environmental crises, or brand activism campaigns). This approach would provide a more nuanced understanding of the psychological mechanisms that underpin consumer loyalty in the NEV industry, particularly in a market characterized by rapid technological change and evolving consumer values.

Moreover, given the significant influence of social media and digital engagement on brand awareness, future research should examine the effectiveness of influencer marketing, virtual reality (VR) experiences, and gamified customer engagement in the NEV industry. As digital technologies continue to reshape consumer-brand relationships, understanding the role of immersive marketing strategies will be essential for companies aiming to stay competitive.

In conclusion, while this study provides valuable contributions to consumer behavior research, further investigations into cross-cultural differences, external influences, long-term consumer relationships,





AI-driven marketing, and immersive digital experiences will be essential in advancing both academic theory and industry practice.

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