Proceedings of the 5th International Conference on Financial Technology and Business Analysis
DOI: 10.54254/2754-1169/2026.38432

The Impact of Brand Effect on Consumer Purchasing: A Case Study of New Energy Vehicles

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Abstract. As the new energy vehicle (NEV) industry is rapidly growing and the global decarbonisation trend has been accelerating, the brand effect has become a critical factor in customers selecting a vehicle. But the underlying processes of how brand effect influences the purchase behaviour of consumers, especially in cross-market and cross-brand comparative situations, are under-theorised and under-empirically tested. This paper compares BYD and Tesla, and analyses the role of brand effect on the consumer purchasing intention. Based on Customer-Based Brand Equity (CBBE) and Social Identity Theory, the study constructs a model which is related to brand exposure, brand association, perceived value and purchase intention. The analysis reveals that brand effect reduces the decision costs, fosters corporate innovation, but creates brand premium bubbles, innovation lock-in and information asymmetry. To this end, the study suggests a multi-stakeholder governance model, which includes value-driven corporate branding, independent third-party evaluation systems and consumer brand literacy education, to counteract these negative impacts. The results expand the research on brand equity to the context of consumption of high technology and provide actionable implications for global NEV markets.

Keywords: Brand Equity, Consumer Purchase Intention, New Energy Vehicles (NEVs), Brand Premium, Cross-Brand Comparative Analysis

1. Introduction

1.1. Industry evolution and strategic divergence in the NEV sector

With the global shift towards a carbon-free economy, the automotive sector has become a focal point of sustainable development, and new energy vehicles (NEVs) have been identified as an important cornerstone of decarbonisation policies around the world. As the world moves towards sustainable mobility, the NEV industry is one of the fastest-growing sectors. In 2025, global NEV sales (battery electric, plug-in hybrid and fuel cell vehicles) increased by 26 percent to 20.53 million units [1]. About 66 percent of these were produced and sold in China alone, where NEV production and sales both surpassed the 16 million marks [1]. This growth is not just policy-backed. However, consumers' attitudes towards EM have changed, and they now consider technological development and driving experience as well as environmental impact.

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The dynamics of brands have become quite pronounced at the high end of the market. In 2025, BYD surpassed Tesla's sales of global Battery Electric Vehicles (BEVs) for the first time, selling around 2.26 million pure electric passenger cars compared to Tesla's 1.64 million [1]. The margin of over 620, 000 units was the result of a wide range of products from entry level to high quality, not a single big hit. These numbers reflect totally different sets of strategic logics. BYD's strength lies in vertical integration, making batteries, motors and power chips of their own, which has kept costs down and enabled the company to ramp up production very quickly. Tesla, in contrast, framed itself as a software and AI company, seeing cars merely as a vehicle to deliver autonomous driving services and continuing subscription revenues [2]. This strategic split is significant to consumer behaviour. Recent empirical studies show that brand association, perceived quality and brand loyalty have a significant and positive impact on EV purchase intention, while perceived price negatively moderates the attitude-intention relationship [3]. These findings indicate that the brand effect has various paths. It isn't just the name recognition. Also includes value assessment and identity construction.

However, the overpowering influence of a brand can have adverse effects. Brand premium bubbles can separate price from any value. Competitive dynamics can be loosened by innovation path lock-in. Brand halos can mask real differences in quality. So it's important to know both the positive and negative sides of brand effect to promote healthy market development.

1.2. Theoretical foundations and research gaps

Numerous studies have explored the link between brand equity and customer purchase behaviour, and the Customer-Based Brand Equity (CBBE) model has been used as a basic framework that includes brand awareness, brand association, perceived brand quality, and brand loyalty. Combined with TPB, Zheng et al. used PLS-SEM to prove that brand association, perceived quality and loyalty are all significant factors to EV purchase intention, and perceived price negatively moderates the attitude–intention relationship [3]. To complement, Social Identity Theory explains the symbolic value dimension in EV adoption. Herzger et al. discovered that the salience of symbolic value increases in the lead-up to purchase, and Jiang et al. supported the finding that social identity, which is heavily influenced by demographic aspects, plays an important role in decisions [4, 5]. Ye et al. also identified a differential brand preference among consumer segments, and Chin et al. demonstrated that functional, symbolic, and experiential brand images help to increase perceived benefits and purchase intentions [6, 7].

Nevertheless, prevailing studies remain constrained by single-market designs and unidimensional conceptualisations of brand effect, largely overlooking cross-national heterogeneity in market context, consumer environmental and technical literacy, and brand positioning strategies. This geographic and contextual narrowness undermines the generalizability of findings to global NEV markets.

1.3. Conceptual framework and research design

In this study, the model of the relationship between brand exposure, brand association, perceived value and purchase intention is established by comparing BYD with Tesla. Firstly, literature review and concept clarification are conducted, followed by global industry development description and global performance analysis of the 2 brands; thirdly, positive influences and core problems are analysed, and fourthly, targeted strategies for the global context.

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2. Comparative case profiles: BYD and Tesla in the global NEV market

The entire structure of the NEV industry has been changed as Chinese manufacturers have established a leading position in both global production and supply chain. The Chinese manufacturers are taking over the global NEV market. In 2025, BYD was the largest NEV manufacturer in the world, accounting for about 4.6 million units of NEV sales. Its BEV sales increased by approximately 25 percent year-over-year, and it has sold more BEVs this year than Tesla has sold overall ever since [1]. A key advantage of the company's business model is the fact that it is vertically integrated, making its own LFP Blade batteries, motors, and power chips, something few rivals can match. BYD has a range of products from the low end of under 100, 000 RMB to the high end, including Denza and Yangyang, ranging from 100,000 to 500, 000 RMB. BYD's product line is wide, from below 100, 000 RMB to the high end, including Denza and Yangyang, which cost 100,000 to 500, 000 RMB. [2]

Tesla, on the other hand, continues to maintain a high-end focus and shows a maturing of growth, with software monetisation becoming a greater driver of growth as opposed to hardware scale.

In comparison, Tesla saw sales of around 1.64 million BEVs in 2025, which is estimated to be a 9 per cent drop from the previous year's sales [1]. Deliveries declined for the second year in a row for the company, as there was not much of a product refresh drive. Rather than increasing the number of cars it sells, Tesla is prioritising a transition to robotics and autonomous driving and investing in AI chips. It is upgraded with the FSD system to version 14, and the company has shifted to a subscription-based system from a one-time purchase system globally from February 1 2026 [2]. Table 1 shows the comparative market position of the two companies, their strategic logics and their product portfolios, and these differences further highlight the diverging paths.

Table 1. Comparative strategic and market profiles of BYD and Tesla (2025)

Metric	BYD	Tesla
Global BEV Sales (units)	~2,260,000	~1,640,000
Year-over-Year Change (BEV)	~+25%	~-9%
Market Position	Mass-market global leader	Premium segment focus
Core Strategic Logic	Vertical integration, cost leadership	Software innovation, AI platform
Product Range	100,000-500,000 RMB	Primarily 250,000+ RMB

3. Dual pathways of brand effect: mechanisms and emerging risks

3.1. Positive mechanisms: cognitive efficiency and innovation incentives

3.1.1. Brand effect as a cognitive heuristic in high-involvement purchases

NEVs are considered a high involvement purchase because they involve information asymmetry, technological complexity and long-term financial commitment. The purchase of a NEV is a high-involvement decision with high information asymmetry, and involves complex trade-offs between technical, functional and experiential attributes. The brand effect is a psychological shortcut. It represents quality assurance and after-sales reliability, reducing decision costs. As soon as buyers

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hear BYD or Tesla, they immediately connote strong resale value, mature technology and established manufacturing. This heuristic can save time and mental effort, particularly if the buyer is not as technical or is a first-time owner. Zheng et al. discovered that brand association and perceived quality have a significant impact on purchase intention mediated by attitude [3]. Zhong also observed that brand trust is a mediator between the brand image and purchase intentions, and that perceived value is a moderator between brand trust and the purchase intentions [8]. Market efficiency-wise, brand effect reduces the time needed to make decisions and accelerates transactions, which facilitates the adoption of NEVs in the various markets.

3.1.2. Brand premium as a driver of technological investment

Firms with strong brand equity have the ability to charge higher prices, which helps them to have more funds to invest into R&D, quality improvement, and upgrading the supply chain, which in turn makes the brand stronger, and the process continues. When there is a strong brand effect, premium returns and barriers to the market are generated. That encourages the continuous R&D of quality control. BYD is one such obvious example. It made significant investments in technology, such as the Blade Battery, DM5.0 hybrid system and e-Platform 3.0, all of which continue to support its "technology for the masses" strategy. With the help of the DM5.0 technology, BYD managed to hold its global market share in the plug-in hybrid segment in 2025 at 28.9 percent, despite the growing competition from Geely and Great Wall Motors [2]. This forms a self-perpetuating process where the brand equity, technological innovation and competitiveness of a market reinforce each other.

Wang et al. provide empirical support. They found that brand experience significantly increases perceived value ($\beta = 0.660$) and brand identification ($\beta = 0.589$), with both mediators predicting purchase intention [9]. Experience-centred branding shapes NEV purchase intention through value-based evaluation, giving companies a reason to maintain high-quality product experiences.

3.2. Emerging risks: market distortions and innovation lock-in

3.2.1. Brand premium bubbles and consumer welfare erosion

But if there is too much brand dependence, the price premium may become disconnected from functional value, creating bubbles in the brand premiums. Zheng et al. discovered that the attitude-purchase intention relationship is moderated by perceived price negatively [3]. As the perceived prices seem to be too high for the perceived value, the positive impact of brand attitude decreases. Zhong discovered that the relationship between brand image and perceived benefits and attitude is mediated by the functional, symbolic and experiential evaluations made by consumers [8]. When symbolic factors outweigh functional values, the consumer may be willing to pay more for the symbolic value of the brand than for its performance.

This results in welfare losses when there are deviations from brand promises. Meanwhile, in the comparative case, Tesla's high-end positioning is under increasing strain from competitors as they provide similar offerings for less money [1]. By offering vehicles across the pricing range from 100,000 to 500,000 RMB, BYD has proven that it is capable of serving several different segments with the same brand without being regarded as a premium one [2]. More fundamentally, brand premium bubbles lead to misaligned price signals in the market, leading to deviations from the efficient levels of resource allocation.

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3.2.2. Innovation path dependence and strategic complacency

Excessive dependence on brand equity is encouraging innovation path dependence, whereby companies focus on brand marketing as opposed to technological perfection. Tesla, the leader in battery systems and autonomous driving, has been struggling with issues of complaints about interior materials, assembly, and paint thickness by consumers. Nonetheless, these shortcomings have not been urgent since the company can afford market positioning that can shield it.

Theoretical insight is provided by Jiang et al. They demonstrated the influence of social identity, defined by income, age, gender and education, on consumption decisions [5]. In high-income groups, the symbolic value of the brand, such as its association with social status, may be more important, and so there may be no need for the brand to improve in terms of everything else. This resource allocation pattern focuses on brand marketing, rather than on product quality, undermines innovation incentives and exposes firms to disruption by new competitors.

3.2.3. Brand halo effects and information asymmetry

Brand halos systematically mask the true quality problems and thus exacerbate information asymmetry. The Italian Competition Authority launched an investigation into four big EV manufacturers: BYD, Tesla, Stellantis and Volkswagen for misleading information on driving range, battery capacity degradation, and the limitations of standard battery warranties [10]. Finally, the investigation resulted in commitments from these companies to enhance the presentation of information to consumers, such as providing more information about range performance and battery warranty conditions.

Herziger et al. demonstrate that identity-based symbolic value intensifies as purchase decisions approach, amplifying brand halo effects and biasing consumers toward perceived brand image over objective quality [4]. This asymmetry suppresses consumer discernment and undermines long-term innovation incentives.

4. Managerial and policy implications

4.1. Corporate strategy: from symbolic positioning to evidence-based brand equity

This is because corporate brand building, based on symbolic value, is still prevailing over functional value, resulting in the validity of the brand premium bubbles. In order to stop the "bubbles" of brands, it is necessary for companies to make a fundamental shift in their strategy. The shift of brand building from symbolic packaging to true value communication. Businesses need to decrease purely symbolic communications and increase clear and open discussions of essential technical features, safety test results and authentic experiences. Instead, BYD can share its Blade Battery needle penetration test results and collision safety ratings and let consumers make an educated decision.

In addition to transparent communication, integrating consumers into the brand-value creation process can help to reduce the excessive emphasis on abstract symbolism. "User co-creation" mechanisms, such as online communities and offline experience programs, can provide the foundation for user value-based brand equity rather than symbolic ones. Both mediators were found to significantly predict purchase intention; specifically, brand experience is significant in predicting value and brand identification [9]. Branding strategies based on experience, which focus on real consumer interaction, can thus tackle value-based evaluation and identity-based connection.

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4.2. Market governance: strengthening independent verification and transparency

When the product is sold under a strong brand, the product defects are hidden, and information asymmetry is exacerbated, which leads to distorted consumer decisions. To address brand halos hiding genuine quality issues, independent third-party evaluation systems are needed. The Italian Competition Authority investigation resulted in commitments from the biggest EV makers to improve transparency on range, battery degradation and warranty [10]. This precedent demonstrates that the government can limit information asymmetry.

The collaboration between the automotive media, consumer associations and professional testing institutions is a necessity. They are able to integrate objective information on crash tests, range and reliability into content and thus, develop comparative reference systems to the official claims of brands. It is desirable to have a neutral evaluator who can conduct a multi-brand horizontal comparison test so that consumers can see the actual strengths and weaknesses from actual tests. These comparative approaches should focus on quantifiable performance measures, such as range based on actual road tests, battery degradation over time, reliability ratings, etc., that could be used by consumers as an objective measure to compare with manufacturer claims.

4.3. Consumer empowerment: enhancing brand literacy and rational choice

Over-dependency and herd behaviour call for multi-stakeholder consumer education. The symbolic value and identity are growing in significance in the adoption of EVs, and the symbolic value–identity relationship is more pronounced among people closer to an EV purchase decision [4]. This closeness in time makes the brand halo effect even stronger and priming even more powerful in the end stages of the decision-making process. Specific educational actions during the decision-making process can thus be especially useful.

Consumer empowerment needs to be achieved through appropriate interventions at various stages to correct the lack of information before purchase and the cognitive bias during the purchase process. Practical guides for rational NEV selection should be published jointly by consumer associations and regulatory authorities. These guides should educate consumers to make decisions based on their needs or on the fundamental parameters and not on the fashion of brands. There is a need to provide courses on "rational consumption" and "digital literacy" at universities and communities to improve public technical evaluation and critical thinking. Mainstream media and social media should promote positive examples of rational consumption of brands, and encourage the adoption of the "what fits is best" principle, thus building an automotive consumption culture in global markets.

5. Conclusion

5.1. Synthesis of core findings

This study aimed to understand the role of brand effect in the model of consumer purchase intention based on comparative case studies of BYD and Tesla in the global NEV market. Brand effect can impact purchase intention by decreasing decision-making costs, decreasing perceived risk and encouraging corporate innovation. It is proven that brand association, perceived quality and brand loyalty have a significant effect on purchase intention, and perceived price has a negative moderating effect on the attitude–intention relationship.

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However, too much influence of brands can also create major challenges — brand premium bubbles that can pressure price signals in the wrong direction and diminish consumer welfare, innovation path lock-in that can dampen competitive forces, and brand halos that can obscure true differences in quality. The findings suggest that BYD's technology democratisation and mass market approach have earned it a leadership position in volume, while Tesla's high-value positioning is under increasing competition despite its high brand value.

5.2. Theoretical and practical contributions

This research is an extension of brand equity research into a global context of NEV consumption, which is a field of literature in consumer behaviour in emerging technology markets. The model that combines CBBE and Social Identity Theory pathways will add to the understanding of how brand effect works in complex purchase decisions in different market environments. Experience-based branding influences the intention to buy a NEV in two ways: value-based evaluation and identity-based connection. This paper further adds to that understanding in comparative global terms.

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5.3. Limitations and avenues for future research

Secondary data from various industry reports and market sources has been used as the main data source in this study. It is not supported by large-scale consumer surveys or experiments to test the validity of brand effect relationships in various national settings. Future studies may be based on scenario experiments with brand awareness and product attribute matches, or in-depth interviews to reveal the psychology of decision-making among the various consumer segments.

Comparative analysis across NEV categories and different national markets could further extend research boundaries and provide more nuanced insights into brand effect mechanisms. Future studies should consider additional mediating or moderating variables to examine interactive effects among brand associations, brand perceived value, and purchase intention.

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