Dean&Francis
ISSN 2959-6130

BYD's Pricing Strategy in the EV Market: Comparative Analysis with Tesla and Strategic Recommendations for Sustainable Development

Yijia Liu

Eton College, Slough, SL3 9HB, United Kingdom
Liu.Y@etoncollege.org.uk

Abstract:

In the highly competitive global electric vehicle (EV) market, a sustainable pricing strategy is crucial for commercial success. Through comparing the pricing strategies of BYD, a Chinese volume leader, and Tesla, a premium innovator located in the US, this study examines the differences between BYD's cost-plus and penetration pricing, enabled by unprecedented vertical integration, and Tesla's value-based and premium ecosystem approach. By drawing upon public financial and market data, this study finds that while BYD's low-cost strategy in the recent price wars has secured market share, it has resulted in margin compression and brand dilution. Tesla, on the other hand, invests in building software, an energy ecosystem and a premium brand, but this limits its volume growth. In order to shift from volume-based competition to balanced, profitable growth, we propose in this paper that a sustainable future requires BYD to integrate dynamic, value-based pricing mechanisms, reinforce its high-end branding and cultivate software monetisation. These findings offer strategic insights for automakers navigating the competitive EV landscape.

Keywords: Electric Vehicles; BYD; Tesla; Pricing Strategy; Sustainability.

1. Introduction

1.1 Research Background and Topic

The automotive industry is undergoing a significant transformation, rapidly shifting from internal combustion engines to electric vehicles. Due to this development, the competitive landscape is changing, making it possible for new players to challenge traditional Original Equipment Manufacturers (OEMs). During this transformation, China has emerged as the world's largest EV market and manufacturing hub, with BYD taking the top position in global EV sales [1]. Its strategy consists of aggressive price cuts and

vertical integration, contrasting greatly with that of Tesla. Instead, Tesla is a high-value brand centred on software innovation and a sustainable energy ecosystem. The price war between these two rivals and their divergent strategies represents a critical stage in the industry's development. Therefore, the pricing strategies of BYD and Tesla are compared and examined in this study, with a focus on their underlying structures, market outcomes, and long-term viability.

1.2 Research Objectives and Significance

The primary purpose of this paper is to compare Tesla and BYD's pricing models and price discrimination tactics, analysing the effects of these strategies on brand positioning, profitability, and market share. The significance of this study lies in its timely contribution to a comparison of pricing strategies in the rapidly changing automotive market and a structured framework for analysing the trade-offs between volume-driven expansion and margin-focused growth models, which will be useful for investors, automakers, and policymakers navigating the complexities of the EV sector.

1.3 Research Methods and Framework

This paper employs a qualitative comparative case study methodology to examine the pricing strategies of two leading EV manufacturers. The foundation of the analysis is a framework of basic pricing theory, which includes the economic concepts of price discrimination, cost-plus, value-based, and penetration pricing models. The data is drawn from public sources, including corporate annual reports, industry publications, market analysis from reputable consultancies, and academic literature. The framework begins by examining BYD's pricing strategy, identifying key elements such as product portfolio, cost structure, and pricing tactics. A subsequent comparative analysis between BYD and Tesla evaluates differences and effects across critical dimensions, including market outcomes and strategic positioning. Finally, this paper presents strategic recommendations for sustainable growth in light of changing market conditions.

2 Current State of BYD's Pricing Strategy

2.1 Product Portfolio and Price Positioning

BYD's product portfolio is diverse, encompassing a wide range of electric vehicles, including passenger cars, buses, and commercial vehicles. This diversity allows BYD to cater to various consumer segments with models spanning affordable entry-level EVs to mid-range sedans and premium SUVs. With the help of its two sales networks, the Ocean and Dynasty Series, alongside Denza (a former joint venture with Mercedes-Benz) and Yangwang, BYD effectively segments the market across diverse consumer groups.

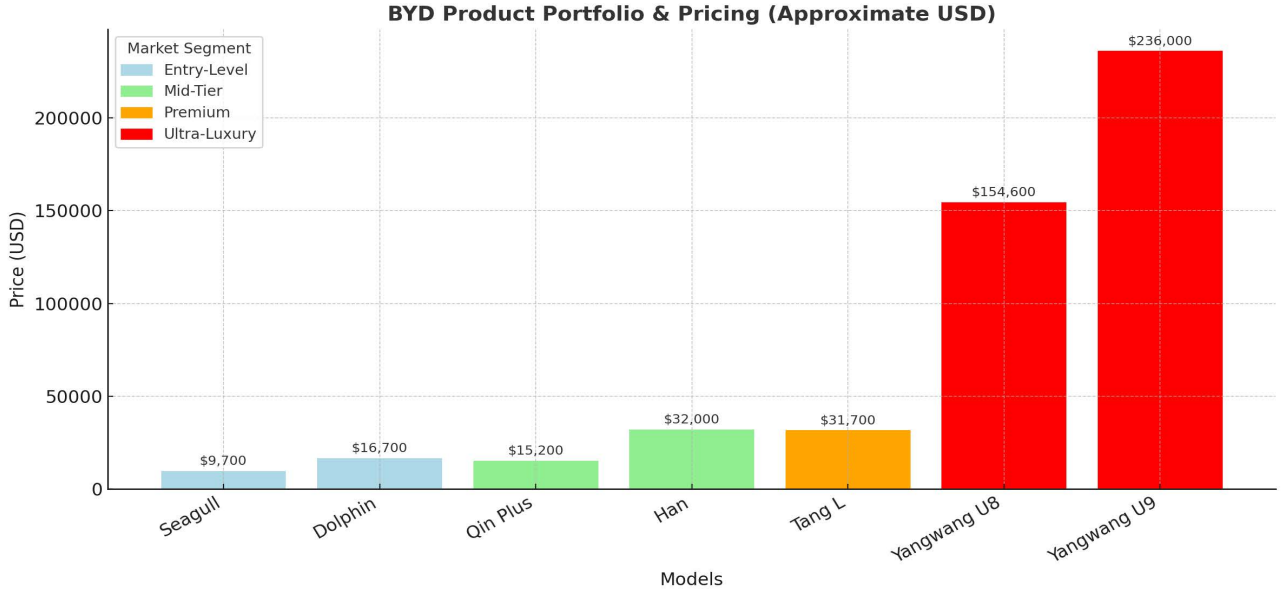

Fig.1 BYD's Product Portfolio and Price Segmentation in approximate USD

At the entry-level, the Ocean Series offers the Seagull and Dolphin, approximately priced between 10,000 USD and 20,000 USD. These highly compact models both offer basic features suitable for urban driving: yet, while the Seagull places emphasis on affordability and simplicity, the Dolphin provides greater size and comfort (Fig.1).

ISSN 2959-6130

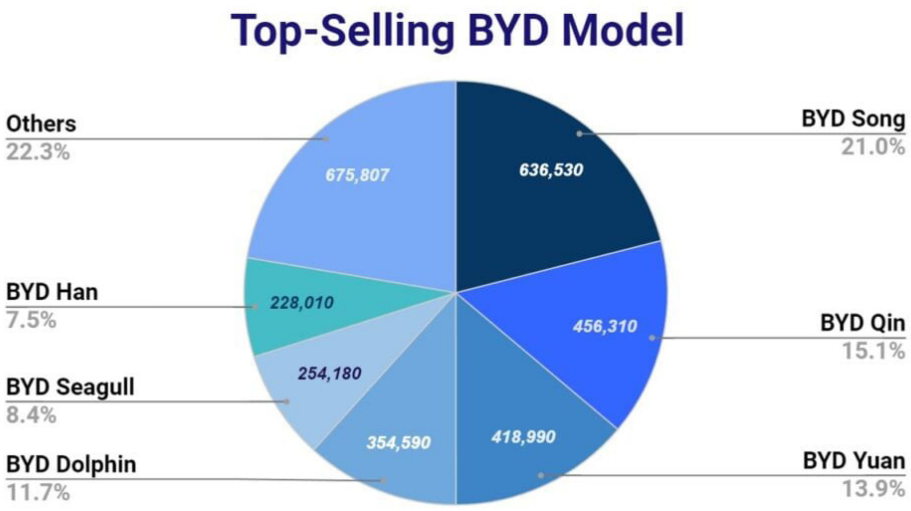

Fig.2 Top-Selling BYD Models by percentage

The mid-tier is primarily dominated by the Dynasty Series, mainly with the Qin (around $20,000). This segment successfully appeals to the middle class, the mass market, by combining affordability with extended range, balanced performance, and functional luxury.

Beyond the mass market, BYD also competes in the premium and ultra-luxury segment. The Han (approximately $27,000 to $41,000) and the Tang (around $30,000 are both high-performance models. With both positioned in the premium category, these models are suitable for families seeking a refined electric driving experience (Fig.2).

Lastly, at the ultra-luxury level, the Yangwang U9, priced at around $230,000, features BYD's sophisticated DiSus-X Intelligent Body Control System and advanced suspension technology, enabling BYD to accommodate and target high-net-worth individuals (HNWIs) and affluent buyers in the EV market; moreover, the high-performance electric sedan Denza Z9 GT also competes in the luxury sedan segment, positioning itself against established rivals like the Porsche Panamera.

2.2 Pricing Models

BYD employs a hybrid pricing strategy, primarily leveraging cost-plus pricing enabled by its unprecedented vertical integration, which then allows BYD to sustain aggressive penetration pricing across mass-market segments. At the same time, it values-based pricing within its diversified product portfolio to capture premium margins in the higher-end markets.

BYD possesses a unique strategic advantage in the EV industry as it is the only automaker that self-develops and manufactures core EV components: batteries (Blade Battery), electric motors, and electronic control units (IGBT chips). This control over its own supply chain enables BYD to employ a highly effective cost-plus pricing strategy by drastically reducing production costs through the elimination of supplier markups, reduction in procurement expenses, and shortened turnover times for capital circulation. This approach has achieved up to 30% lower manufacturing costs for BYD's 2024 EV models, allowing the company to set competitive base prices while preserving scale-driven profitability [2].

Furthermore, in 2025, BYD implemented aggressive price cuts across 22 models, reducing prices by up to 34% in an effort to accelerate adoption and put pressure on competitors [3]. This penetration pricing has intensified price wars in China's EV sector, reinforcing BYD's dominance; for instance, in June 2025, BYD saw record deliveries of 377,628 vehicles, a 10% rise year-on-year [4]. However, at the same time, price wars compressed profit margins for both BYD and its competitors, particularly since state subsidies declined. Effectively, BYD was strategically trading short-term profitability for long-term market leadership, betting that its cost structure would allow it to outlast competitors and solidify its dominance.

Beyond the cost-plus and penetration tactics, BYD applies a sophisticated value-based pricing strategy that relies on measuring consumer willingness-to-pay and capturing surplus through differentiated offerings. This approach is consistent with the economic theory of price discrimination, which BYD implements mainly across two of the three levels. While BYD does not achieve perfect first-degree discrimination, it approximates it through customisation and premium add-ons, and it is mostly visible only in the high-end models such as the Denza and Yangwang. BYD offers optional features, premium add-ons, subscription services (e.g. autonomous driving upgrade), and luxury finishes, which enable BYD to capture parts of individual consumer surplus.

BYD's use of second-degree price discrimination operates

through product differentiation within the same model line. BYD provides varying battery capacities and drivetrain options (e.g. standard vs. long-range configurations), enabling consumers to self-select according to their preferences and budget.

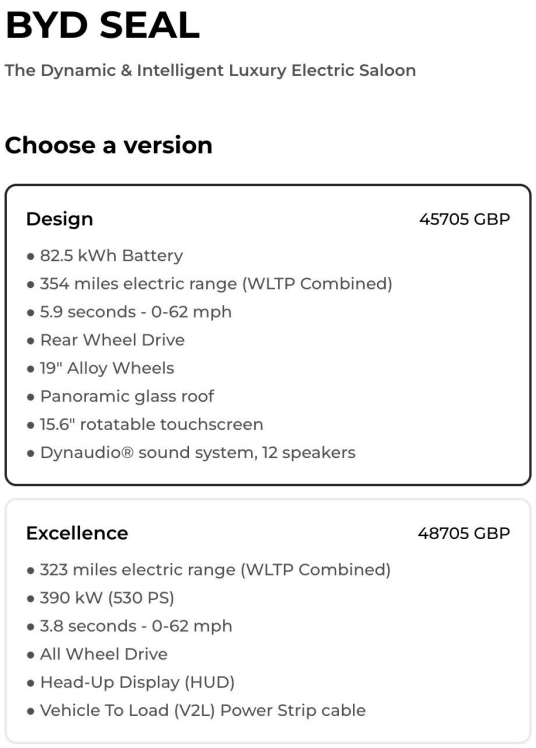

Fig. 3 Current Differentiations in Pricing of BYD SEAL

A clear example of this can be perceived in BYD's Seal sedan, which offers battery capacities of 61.4 kWh or 82.5 kWh and either rear-wheel drive or all-wheel drive for its drivetrain options. Not only does this widen accessibility, but it also ensures that higher-paying customers for the performance trim subsidise lower margins at the entry tier (Fig.3).

BYD employs third-degree price discrimination by adjusting its international pricing to align with regional market conditions. For instance, its exported EVs to the European market are often over twice as expensive as those sold in China, indicating a higher willingness-to-pay for safety standards, brand perception, and technological credibility. In contrast, Southeast Asian markets experience more fierce pricing rivalry, adjusted for affordability. BYD targets young urban buyers with reasonably priced Seagulls and positions the luxury Yangwang U8 for high-income individuals in China based on demographic categories.

In summary, these three levels of price discrimination enable BYD to maximise revenue capture without losing cost-sensitive buyers. This adaptability strengthens its ability to operate across diverse consumer landscapes, ranging from emerging markets to advanced economies.

2.3 Market Outcomes

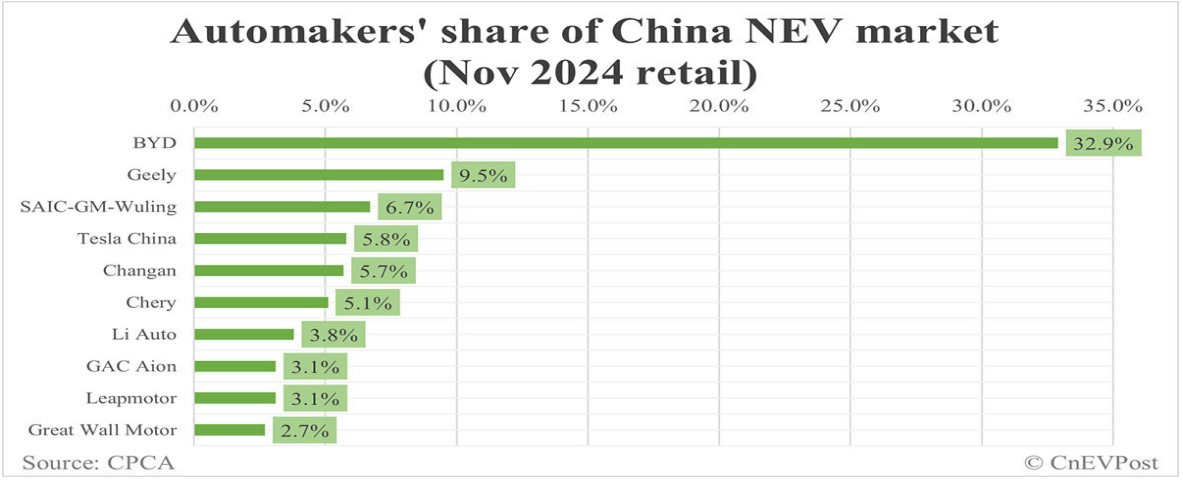

Fig.4 Automakers' share of China New Energy Vehicles (NEV) market in November 2024

In 2024, BYD sold 4.27 million NEVs globally, representing a 41.3% year-on-year increase [2]. This accounted for around 33% of China's total NEV sales (12.87 million units), positioning BYD as the world's largest producer of electric passenger vehicles [3,4,5]. BYD's dominance illustrates the effectiveness of its tiered pricing model in accelerating adoption. Nationally, NEV penetration reached 47.6% overall, exceeding 50% in the second half of 2024,

ISSN 2959-6130

a milestone to which BYD was a primary contribution (Fig.4).

Internationally, China's NEV exports also rose to 1.284 million units in 2024, with BYD playing a major role through the strong overseas performance of its Dolphin, Seal, and Atto 3 models in regions such as Europe and Southeast Asia, where BYD's penetration pricing and differentiated product positioning enabled it to capture market share from both legacy automakers and Tesla. At the same time, the success of BYD and its peers drove domestic brands to expand their collective market share to 65.2%, a 9.2% year-on-year increase [4]. This highlights a structural shift in global automotive dynamics, where Chinese automakers, predominantly BYD, are transitioning from domestic to global leaders.

3 Comparative Analysis: Tesla vs. BYD

3.1 Product Portfolios and Pricing Outcomes

Tesla deliberately maintains a narrow, premium-oriented portfolio, focusing on mid-to-high-end electric vehicles. As of 2024, Tesla offered five main vehicles: Model 3 (around $38,990), Model Y (around $45,990), Model S (around $74,990), Model X (around $79,990), and the Cybertruck [6]. The average selling price across these models was approximately $46,000, which is above the average EV market benchmark, reflecting a premium positioning relative to the wider EV market. This positioning is justified by sophisticated features such as full self-driving software, over-the-air updates, and access to Tesla's proprietary charging infrastructure.

Tesla keeps the number of models limited to achieve economies of scale. This is accomplished due to the reduction in manufacturing complexity and standardisation of components across its vehicles. The Model 3 and Model Y, for instance, have a lot in common in terms of their architecture and components, allowing rapid production scaling and tighter control of margins. This disciplined product scope also allows Tesla to focus its resources on refining software integration, which remains its strongest differentiator from competitors.

Furthermore, Tesla differentiates by offering an integrated energy ecosystem. This includes solar generation (panels and the Solar Roof) and stationary storage solutions, ranging from the Powerwall for residential use to the Megapack for utility-scale applications. This strategy repositions Tesla's vehicles from standalone products into key components of a comprehensive renewable energy system. For example, households that pair a Model Y with rooftop solar and a Powerwall gain both mobility and energy independence. This framing elevates Tesla above traditional automakers, enhancing its pricing resilience by shifting consumer evaluation from upfront vehicle cost to the long-term economic and functional value of an integrated energy and mobility solution.

In contrast, BYD's range spans the full spectrum, from the ultra-low-cost Seagull to ultra-luxury vehicles like the Yangwang U9. This broad coverage ensures that BYD caters to multiple income groups, while Tesla relies on its narrow range to strengthen its brand identity but leaves large, developing markets, particularly entry-level EV buyers in China and Southeast Asia, under BYD's domain.

3.2 Cost Structure

Tesla's cost structure is shaped by heavy R&D investment ($4.54 billion in 2024) in software and autonomous driving, as well as Artificial Intelligence (AI) [7]. Meanwhile, BYD invested around $7.6 billion into its vertical integration and manufacturing efficiency [8]. Tesla also maintains a globalised Gigafactory network with plants based in Shanghai, Berlin, Texas and Fremont, which mitigates geopolitical risks and reduces logistics costs. On the other hand, BYD benefits from lower regulatory, labour and energy costs; along with its deeply integrated local supply chain, BYD has significantly lower input costs.

Tesla's high R&D in software and production costs necessitate premium pricing, focusing on reducing cost per vehicle in the long-term, mega-casting, structural battery packs, and simplifications of its manufacturing processes. Conversely, BYD's cost advantages enable mass-market penetration, making it difficult for Tesla to compete on affordability within China.

Tesla, however, relies on external suppliers for some critical inputs, such as traditional auto parts and lithium, although it is expanding in-house battery production with 4680 cells. This partial dependency makes Tesla more exposed to global supply-chain volatility than BYD, which benefits from a denser domestic supply chain.

3.3 Positioning Differences

Tesla positions itself as a leader in innovation rather than a price competitor, justified by its autonomous driving solutions and energy ecosystem. Its vehicles are marketed as status symbols for consumers who appeal to value innovation and environmental consciousness. In this way, buyers are not only purchasing green transportation but also positioning themselves as advocates of innovation.

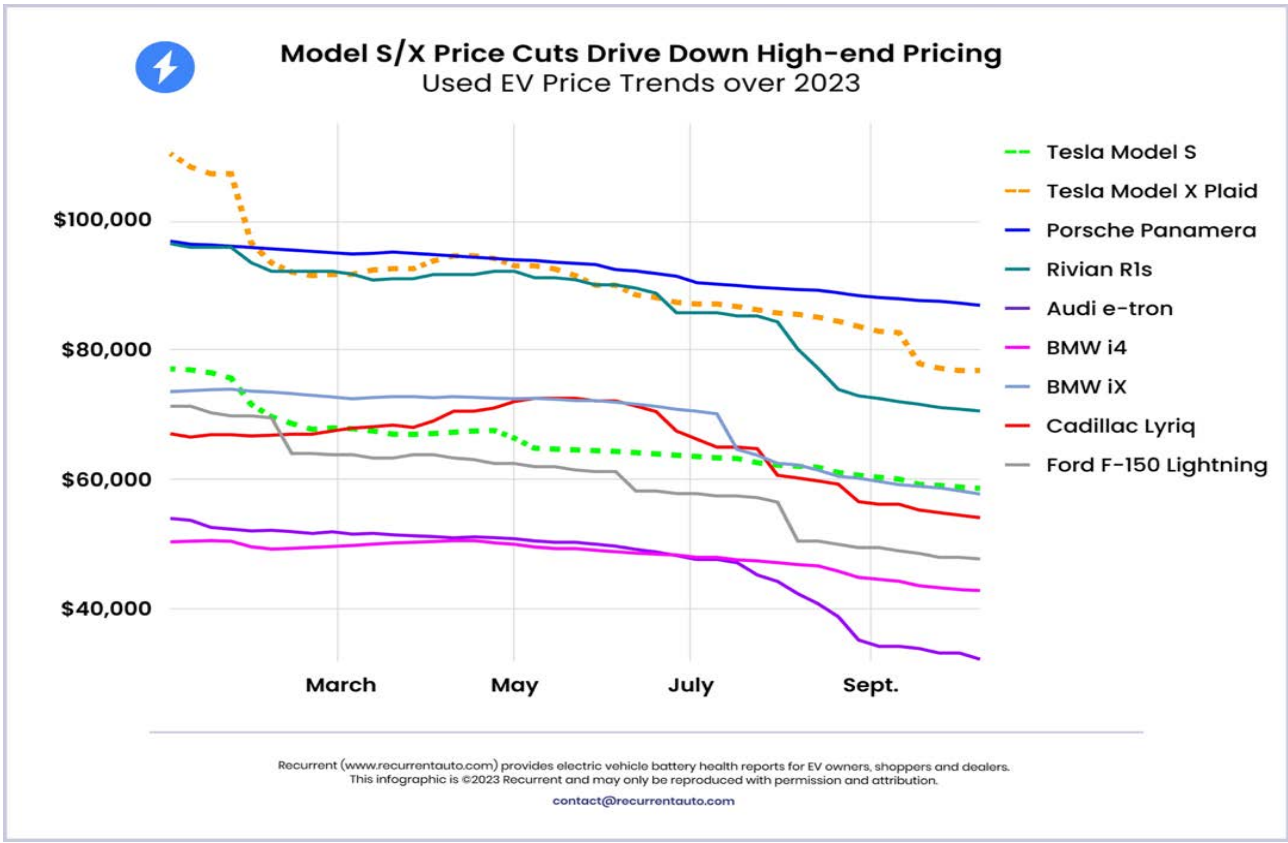

Fig. 5 The price reduction trends in EVs over 2023

However, this positioning faced turbulence when Tesla began implementing steep price cuts in 2023–2024, particularly in China and Europe. In early 2024, China saw reductions of up to 20% on the Model 3 and Model Y. Given BYD‘s cost leadership, vertical integration, and rapidly increasing sales, this was widely interpreted as a defensive move against BYD’s market share expansion. Despite these cuts, Tesla only sold 1.79 million vehicles in 2024, compared to BYD’s 4.27 million units. In China, where BYD holds roughly 33% of the NEV market, Tesla faces lower sales since it is positioned narrowly, targeting the high-end market. Yet, Tesla has achieved much higher per-unit revenue, reflecting Tesla’s strategy of prioritising profitability and brand equity over sheer market share. This significantly differs from BYD’s, which emphasises affordability and scale (Fig. 5).

3.4 Impact on Brand and Market

During the intense competitive landscape in 2024, BYD has leveraged its significant cost advantages to launch aggressive price cuts, particularly through the launch of new ‚Honour Edition‘ models. This is where BYD releases new and slightly updated versions of a car (e.g. Qin Plus or Seal) at a significantly lower starting price, effectively lowering the price floor of the segment without officially changing the Manufacturer‘s Suggested Retail Price (MSRP) of the old model.

This strategy is a deliberate move to consolidate market share and pressure rivals, rather than a reaction to fluctuating demand. This volatility, however, caused mixed responses from consumers: while lower prices increased accessibility, frequent changes usually frustrate early buyers who paid higher prices. In the long run, such volatility generates consumer dissatisfaction and erodes brand equity.

According to Figure 5, Tesla sometimes made sudden global price reductions to maintain sales momentum, followed by modest upward revisions once demand stabilised. Being among the top 10 most admired technology companies worldwide, Tesla can maintain a relatively stable market price, as consumers are willing to pay a premium for its advanced technology and brand [9].

ISSN 2959-6130

4. Sustainability Analysis of BYD's Pricing Strategy

4.1 Market Environment Changes

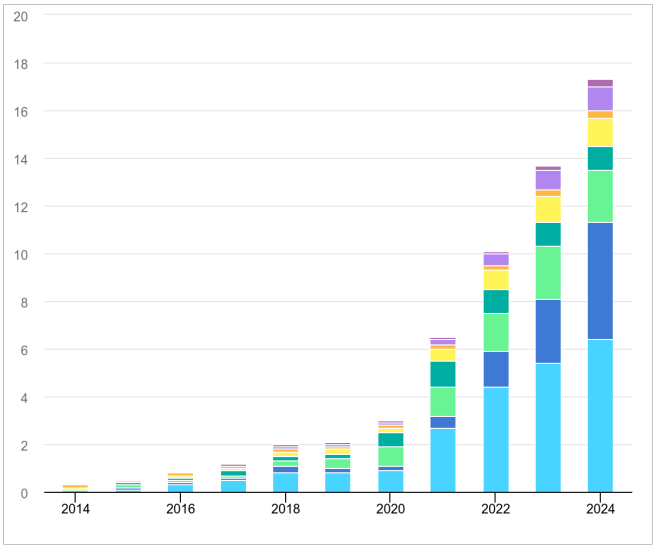

Fig.6 Global EV market rise from 2014 to 2024, measured in millions of units

The global EV market is expanding rapidly. In 2024, global EV sales exceeded 17 million units, accounting for over 20% of global vehicle sales. Moreover, in China, EV penetration rates are approaching 50% of new car sales. While the growth supports BYD's strategy of scale, it also dramatically raises consumer price sensitivity as buyers increasingly compare across brands (Fig.6).

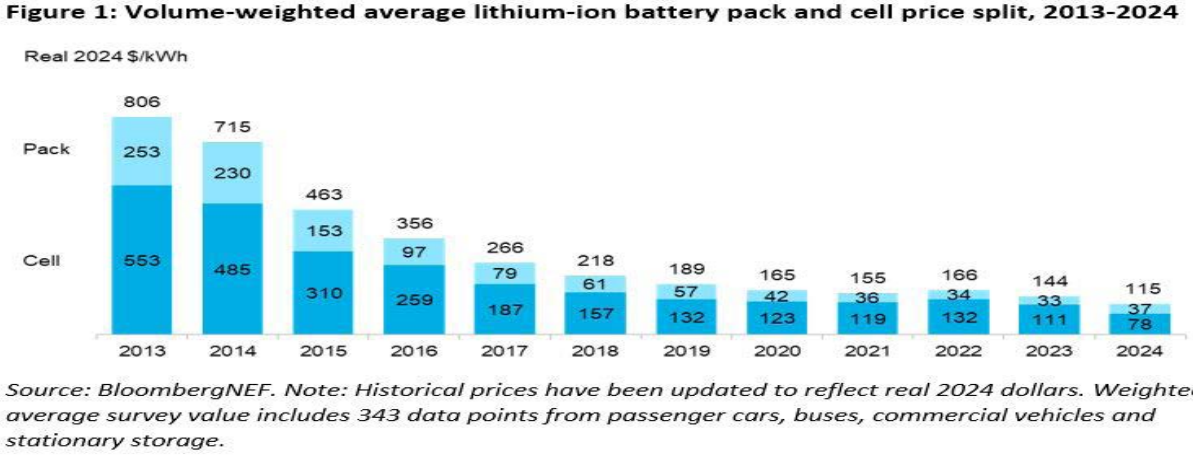

Fig. 7 Volume-weighted average lithium-ion battery pack and cell price split, 2013-2024 in $/kWh

According to Fig. 7, over the past decade, the prices of battery cells and packs have steadily declined, reaching $115/kWh by 2024. Meanwhile, critical minerals such as lithium (an increase by 30% in 2024), along with other key minerals increasing between 6% and 8%, introduce input cost volatility [10]. This has impacted industry-wide profitability and BYD's competitive edge [5].

Concurrently, international trade policies are becoming more restrictive. The European Union, for instance, has imposed provisional anti-subsidy tariffs on Chinese Battery Electric Vehicles, setting a 17.4% duty on BYD imports; meanwhile, the United States has also raised its Section 301 tariff on Chinese EVs to 100% in 2024, effectively forcing Chinese manufacturers out of the American automotive market [11,12].

4.2 Potential Risks

Domestically, the Chinese EV market has an ongoing phase of intense price wars, where automakers are aggressively discounting to defend market share. In Q2 2025, BYD's net profit plunged nearly 30% year-on-year to around $895 million [6]. This marks its first earnings decline in more than three years and follows a weak first half of 2024, in which BYD achieved only 40% of its annual sales target. Despite record overall volumes, this shortfall revealed how dependent BYD has become on continuous discounting rather than balanced growth.

This financial strain has been escalated by new policies from Chinese regulators since March 2025, who are urging companies like BYD to end this cut-throat price competition to stabilise industrial profitability. The danger for BYD is that while short-term discounts may preserve market share, they erode margins and the brand's perceived value. BYD's gross profit margin already dropped from 18.78% in the first half of 2024 to around 18.01% in the same period this year, highlighting that cost growth has outpaced revenue growth. Without setting clear price floors, BYD risks cannibalising its own models and confusing its tiered market positioning. Over time, this could trap BYD in a low-margin cycle where scale no longer compensates for profit dilution.

A related issue is the company's ineffective pseudo-premiumisation. BYD's luxury-oriented Yangwang U8 and U9 accounted for less than 10% of sales in H1 2024, underperforming in the high-end market segment [7]. This failure to capture ultra-luxury consumers leaves BYD heavily reliant on lower-tier models, which are pressured by the price war. At the same time, the firm's strategy of offering advanced driver-assistance features such as the "God Eyes" system for free across its product tiers has undermined potential software monetisation. In contrast to Tesla, which secures recurring revenue streams from software subscriptions, BYD has sacrificed a high-margin opportunity to compete aggressively in the price war.

In the international market, BYD will continue to face geopolitical uncertainty and rising tariff barriers. These policy developments will likely constrain BYD's pricing flexibility abroad.

5. Recommendations for a Sustainable Pricing Strategy

5.1 Optimising Product and Price Ladder

BYD currently engages in price wars and carries out many price cuts to match its volume-driven discounting strategy. However, BYD risks losing margins and brand clarity over these volume-driven price cuts. BYD is recommended to strictly implement distinct price floors across the product portfolio; in this scenario, BYD needs to clearly define that Ocean and Dynasty series are for the mass-market, Denza for premium, and Yangwang for luxury. This creates a clear upgrade path within the BYD ecosystem, allowing consumers to move upward across tiers without leaving the brand ecosystem.

Moreover, BYD should implement a structured model where early buyers pay a premium price for new models and technologies. Then, as the technology becomes more prevalent and commonplace, prices should be gradually lowered in the product cycle rather than through abrupt and reactive cuts.

This approach preserves perceived value and stabilises residual prices. Tesla's practice of measured adjustments, designed to protect resale value and customer confidence, provides a strong benchmark for BYD. In addition, temporary, targeted incentives such as regional sales events should replace broad-based cuts in order to stimulate demand without undermining the perceived value and residual prices of all the models.

5.2 Differentiated Overseas Pricing

BYD is recommended to establish manufacturing facilities outside China (e.g. Europe and Southeast Asia) to reduce tariffs and logistics costs, enabling BYD to set a more competitive overseas pricing without undermining profitability. Just as Tesla's Shanghai factory has been successful, BYD can further strengthen its localisation strategy in the overseas market, its Thailand factories having already supplied Dolphin models to Europe. This could help mitigate tariff barriers.

Moreover, BYD is recommended to strengthen its regional differentiation strategy, where it can utilise competitive pricing in Southeast Asia and Latin America, with premium positioning in Europe, where regulatory frameworks and consumer expectations align with a higher willingness to pay. The shift from standardised mark-ups to tailored pricing and positioning to local willingness-to-pay is crucial for making its vehicles more accessible without initiating direct price cuts.

5.3 Building Brand Premium

BYD's cost advantage has been largely sustained through its unparalleled vertical integration, especially the adoption of in-house batteries, electronics, and power semiconductors. BYD should continue investing in R&D to maintain its cost advantages through vertical integration, particularly in battery technology, positioning itself as a technology leader.

Beyond vertical integration advantage, BYD is recommended to focus on its high-value mass-market brand while using Denza and Yangwang more strategically to capture premium and luxury demand. This tiering system

ISSN 2959-6130

would minimise dilution and strengthen BYD's pricing power across segments. Moreover, BYD should transition away from cost-plus towards value-based models: pricing according to innovations such as advanced battery ranges, DiSus-X intelligent control, and digital features. In this way, BYD can foster customer loyalty that goes beyond price.

Additionally, BYD is recommended to introduce subscription-based services. For instance, OTA software upgrades or intelligent driving functions should be monetised similarly to Tesla's monetisation of Autopilot and Full Self-Driving subscriptions, which demonstrates how recurring streams provide a financial buffer against cyclical car sales. Lastly, BYD must aggressively promote to buyers its technological leadership in batteries and efficiency, framing its vehicles as not just cars but as part of a total cost of ownership advantage. By emphasising lower charging costs, minimal maintenance, and battery longevity, BYD will be able to justify initial purchase prices and build a rational case for premium branding, strengthening long-term loyalty and providing defences for higher prices.

5.4 Dynamic Pricing Mechanism

BYD should implement real-time monitoring of competitor pricing moves, consumer demand, raw material costs and macroeconomic factors, including new government policy, in order to adjust prices dynamically. All these factors should then be fed into a central pricing command centre powered by advanced analytics and AI. In this way, the company can model the impact of potential pricing actions before implementation. This will, as a result, reduce the risk of reactive decisions that harm margins and instead allow for proactive pricing adjustments.

Furthermore, newly introduced models with more advanced technologies should strive to maximise revenue capture by beginning at a premium price. Then, subsequent price adjustments should be incremental and strategic rather than being broad-based. Instead of having broad price cuts, the company should utilise targeted, region-specific discounts or limited-time feature packages to incentivise demand. By implementing this dynamic and disciplined pricing mechanism, BYD can protect its profitability, brand perception, and build resilience against macroeconomic shocks and competitive pressures.

6. Conclusion

The comparative analysis of BYD and Tesla highlights two distinct strategic approaches in the global EV market. BYD has leveraged its broad product portfolio, unparalleled vertical integration and cost leadership to achieve rapid market penetration. However, BYD's aggressive pricing and reliance on volume-driven growth expose the company to potential risks. For instance, persistent price wars compress profit margins, obscure the positioning of its premium offerings, and further limit opportunities to monetise advanced technologies. In addition, evolving tariff policies and localisation requirements impact BYD's cost advantages abroad. In contrast, Tesla has a strong emphasis on premium positioning, which is boosted by software innovation, autonomous driving capabilities, and an integrated energy ecosystem. This enables Tesla to achieve higher per-vehicle profitability and strengthen its brand image.

Overall, the sustainability of these approaches depends on each company's ability to strike a balance between short-term performance and long-term sustainability. BYD is recommended to refine its pricing strategy, strengthen its brand hierarchy, and explore value-added services to avoid being trapped in a commoditised, low-margin cycle. The study demonstrates that profitability in the EV industry is not solely a function of volume or price but also of strategic alignment between cost structure, product portfolio, and market positioning. Future growth will favour those companies that can combine innovation, brand strength, and operational efficiency to adapt to evolving consumer expectations, regulatory pressures, and global competition.

References

[1] Han, Yi. „Three Essays on Economic Innovation in the Energy Sector." U of Wisconsin–Milwaukee, dissertation.

[2] BloombergNEF. Electric Vehicle Market Outlook 2025. Bloomberg Finance L.P., 2025.

[3] Reuters. „BYD Quarterly Profit Plunges Amid Price War." Reuters Business News, May 2025.

[4] IEA. Global EV Outlook 2025. International Energy Agency, 2025.

[5] CAAM. China Association of Automobile Manufacturers Annual Report 2025. China Association of Automobile Manufacturers, 2025.

[6] CPCA. China Passenger Car Association: NEV Market Data 2025. China Passenger Car Association, 2025.

[7] BYD. BYD Company Ltd. Annual Report 2024. BYD Co., 2025.

[8] Tesla. Tesla Inc. Annual Report 2024. Tesla Inc., 2025.

[9] Derrick, Maya. „Title of Article." Technology Magazine, 2025.

[10] USGS. Mineral Commodity Summaries 2025: Lithium. U.S. Geological Survey, 2025.

[11] European Commission. Provisional Anti-Subsidy Tariffs on Chinese BEVs. European Union, 2024.

[12] USTR. Section 301 Tariffs Update 2024. Office of the United States Trade Representative, 2024.