



Key Elements of Business Analysis for BYD's Entry into Thailand EV Market

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Abstract. This study investigates BYD's entry into Thailand's electric vehicle (EV) market through quantitative and qualitative analysis, focusing on market demand, competitive dynamics, and strategic decision-making. Findings reveal that Thailand's EV market is driven by government policies (e.g., the "EV 3.5 Plan"), consumer demand for eco-friendly and low-cost mobility, and technological advancements, though traditional fuel vehicles still dominate. BYD has secured a 38.5% market share (2024) through technological leadership (e.g., blade batteries), cost efficiency (20%-lower vehicle costs than Japanese competitors), and localization strategies (e.g., right-hand-drive models). While Thailand's EV market shows significant growth potential (targeting 30% EV penetration by 2030), challenges include policy uncertainties, insufficient charging infrastructure, and competition from Japanese hybrids. This research offers theoretical and practical insights for Chinese EV manufacturers expanding into Southeast Asia.

Keywords: Business Analysis; BYD; EV Market

1 Introduction

In recent years, the global new energy vehicle (EV) industry has developed rapidly, and with the increasing awareness of environmental protection and policy promotion, EV has gradually become the future development direction of the automotive industry. As an important economy in Southeast Asia, Thailand has a developed automotive industry and is known as the "Detroit of Southeast Asia", occupying a key position in the ASEAN automotive market ^[1]. The Thai government actively promotes the development of the EV industry and has introduced multiple preferential policies, such as tax reductions, infrastructure construction subsidies, etc., attracting numerous international car companies to expand into the Thai EV market ^[2]. At the same time, BYD is accelerating its overseas market expansion with its technological advantages and cost control capabilities in the field of new energy vehicles, and the Thai market has become an important part of its strategic layout. In this context, in-depth research on the demand and competitive landscape of the Thai EV market is of great practical significance for BYD's business decision to enter the Thai market ^[3].

This study provides a scientific basis for BYD to formulate business strategies for entering the Thai market by quantitatively analyzing the demand and competitive landscape of the EV market in Thailand. It helps BYD to accurately position the market, optimize product layout, and enhance market competitiveness^[4]. At the same time, the research results can provide reference for other Chinese new energy vehicle companies to enter the Thai and Southeast Asian markets, promote the international development of China's new energy vehicle industry, and have certain theoretical and practical value for reshaping the global new energy vehicle industry pattern^[5].

2 Literature Review

2.1 Research on the Demand for EV Market in Thailand

The demand for electric vehicles (EVs) in Thailand is showing a rapid growth trend, mainly due to government policy support and consumers' attention to environmentally friendly travel. In recent years, the Thai government has introduced a series of policies to promote the popularization of electric vehicles, including reducing purchase taxes, providing car purchase subsidies, and building charging infrastructure. In 2025, Thailand plans to further promote the market penetration of electric vehicles through the "EV 3.5" strategy. In addition, the electric vehicle market in Thailand has also received attention from international brands, with Chinese brands such as BYD, MG, and Great Wall Motors performing outstandingly in the Thai market and occupying a high market share^[6]. Nielsen IQ's report shows that Thai consumers' acceptance of electric vehicles is increasing, especially in urban commuting and short distance travel scenarios, where the market penetration rate of electric vehicles is steadily increasing. However, despite the rapid growth of the electric vehicle market, traditional fuel vehicles still dominate, with low market penetration and facing problems such as credit tightening and lack of consumer confidence in purchasing cars^[7].

2.2 Research on the Competitive Landscape of the Thai EV Market

The competitive landscape of the electric vehicle market in Thailand presents a diversified characteristic. Chinese brands dominate the electric vehicle market in Thailand, with BYD holding a 38.5% share of the electric vehicle market with 27005 registered vehicles in 2024. Other outstanding Chinese brands include MG, Nezha, etc. These brands quickly occupied different segmented markets with their diverse models and high cost-effectiveness^[8]. In addition, the Thai government's subsidy policy for new energy vehicles and continuously improving charging infrastructure have provided strong support for the prosperity of the electric vehicle market. Despite the strong performance of Chinese brands in the Thai market, Japanese brands may face certain challenges in the fields of hybrid electric vehicles (HEV) and light electric vehicles due to their long-standing localization advantages in Thailand. Overall, the electric vehicle market in Thailand is highly competitive, but the market potential is enormous and there is still significant room for development in the future^[9].

2.3 Research on BYD's Entry into Overseas Markets

As a leading electric vehicle manufacturer in China, BYD's overseas market expansion strategy has attracted much attention. BYD's success in the Thai market can be attributed to its localization strategy and technological innovation capabilities. BYD has not only established a production base in Thailand, but also won the trust of consumers through flexible marketing strategies^[10]. In 2025, BYD plans to start production at its factory in Rayong, Thailand, with an annual production capacity of up to 150000 vehicles, which will further consolidate its position in the Thai market^[11]. In addition, BYD actively participates in the construction of charging infrastructure in Thailand and collaborates with local enterprises to create smart charging solutions. BYD's successful experience shows that technological innovation and localized production are key factors for its success in overseas markets. Through successful practice in the Thai market, BYD has provided valuable experience and reference for other Chinese electric vehicle brands^[12].

3 Analysis of Demand for EV Market in Thailand

3.1 Overall Situation of the Thai Automotive Market

(1) Total sales and penetration rate

The total sales volume of the Thai automobile market in 2024 was 573,000 units as is shown in Table 1, a year-on-year decrease of 26.09%, reaching a new low since 2011. Among them, the penetration rate of new energy vehicles (including EV, HEV, PHEV) has increased to 14.0%, and the registered number of pure electric vehicles (BEVs) is 70,137, with a penetration rate of 14.0%. Although it has decreased by 8.1% year-on-year, it is still the highest level in Southeast Asia.

Table 1. Thai Automotive Market Data

Unit: Thousands of vehicles					
Year	Total Sales Volume	Fuel Vehicles		New Energy Vehicles	
		Sales Volume	Proportion	Sales Volume	Proportion
2015	799	798	99.90%	1	0.10%
2016	768	766	99.70%	2	0.30%
2017	871	867	99.50%	4	0.50%
2018	1,047	1,041	99.40%	6	0.60%
2019	1,008	1,001	99.30%	7	0.70%
2020	792	783	98.90%	9	1.10%
2021	849	837	98.60%	12	1.40%
2022	775	750	96.80%	25	3.20%
2023	776	740	95.40%	36	4.60%
2024	573	493	86.00%	80	14.00%

Source: Wind Terminal

Note: New energy vehicles include BEVs (pure electric), PHEVs (plug-in hybrid), and HEVs (hybrid), with BEVs accounting for 70,137 units in 2024 (87.7% of new energy vehicles).

(2) Brand competition pattern

Traditional fuel vehicles: As is shown in Figure 1, Japanese brands dominate the market, with Toyota (38.5% market share), Isuzu, and Honda accounting for nearly 80% of the total market share.

New energy vehicles: The rise of Chinese brands. From January to May 2024, Chinese car companies accounted for 53.2% of the new energy market share, with BYD leading with 22.3%, followed closely by SAIC (8.8%), Great Wall Motors (6.6%), and Nezha (6.1%).

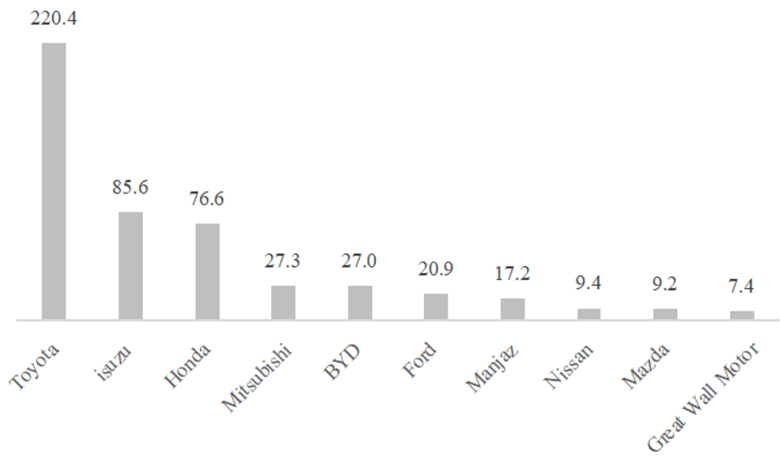


Fig. 1. Car Sales of Various Brands in the Thai Market in 2024

Unit: Thousands of vehicles

Source: Wind Terminal

(3) Vehicle structure

Fuel powered vehicles: mainly pickup trucks (Toyota Hilux, Isuzu D-Max) and compact sedans (Honda City), but sales have decreased by 30% -45% year-on-year.

New energy vehicles: Among the top ten BEV sales models in 2024, Chinese brands account for 7 seats, with BYD Dolphin (13,386 units), Atto 3 (7,747 units), and Nezha V (6,587 units) ranking in the top three.

3.2 Driving Factors for Demand in the Thai EV Market

(1) Policy driven

The "EV 3.5 Plan": The Thai government has allocated 34 billion Thai baht (approximately 970 million US dollars), aiming to build 12,000 fast charging piles by 2030, reduce EV import tariffs by 20% -40%, and exempt corporate income tax for 8 years.

Car purchase subsidy: A subsidy of 50,000 to 100,000 Thai baht will be provided for car models with a selling price of ≤ 2 million Thai baht, promoting the counter trend growth of BEV sales in 2024.

(2) Economic drive
Fuel cost pressure: Thai household debt/GDP has reached 91.8%, the refusal rate for fuel car loans has risen to 50%, and the average annual usage cost of EVs is 70% lower than that of fuel cars.

Industrial transformation demand: Traditional fuel vehicles have overcapacity (with a production capacity of 1.5 million vehicles in 2024 and a utilization rate of less than 60%), and the government is promoting the construction of EV export bases.

(3) Technology driven
Localized production: Seven Chinese car companies, including BYD and Great Wall Motors, have established factories in Thailand, with the localization rate target for parts increasing from 40% to 80%.

Product adaptability: Optimized battery cooling system for high temperature climate in Thailand, launching right-hand drive models (such as BYD Dolphin).

3.3 Forecast of EV Market Demand in Thailand

As is shown in Figure 2, the Thai electric vehicle market shows promising development prospects. At the policy level, the Thai government has formulated the "Thailand Electric Vehicle Development Strategy 2030", aiming to achieve 30% of new cars being electric vehicles by 2030, while providing car purchase subsidies, tax incentives, and promoting the construction of charging pile infrastructure.

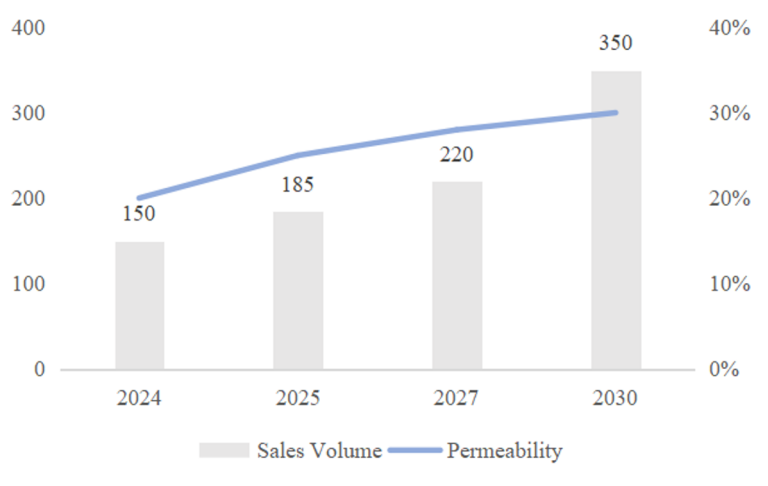


Fig. 2. Forecast of EV Market Demand in Thailand (Generalized New Energy Vehicle)

Unit: Thousands of vehicles
Source: Wind Terminal

From 2025 to 2027, it plans to build thousands of charging piles to lay the policy and infrastructure foundation for market development. In terms of market demand, although the number of EV registrations in 2024 decreased by 10.7% year-on-year, with the increasing awareness of environmental protection among consumers, more than 60% of consumers consider environmental performance as an important factor when purchasing cars. In addition, companies have launched diversified car models to meet different needs, and market demand is expected to rebound.

In terms of technological progress, the improvement of battery life, shortened charging time, and popularization of intelligent configuration have enhanced the competitiveness of EVs. In addition, as an ASEAN automotive manufacturing center, Thailand has great potential for EV exports and is expected to continue expanding its market size in the future, relying on its industrial cluster advantages and regional trade agreements.

According to predictions from professional organizations such as the Thai Electric Vehicle Association, the future growth of the Thai EV market is shown in Table 2:

Table 2. Forecast of EV Market Demand in Thailand

Unit: Thousands of vehicles			
Year	Sales Volume	Permeability	Main driving factors
2024	150	20%	EV 3.5 subsidy launch
2025	185	25%	Localized production with high volume
2027	220	28%	Complete charging network
2030	350	30%	30@30 goal achievement

Source: Wind Terminal

Based on the above analysis, the Thai EV market has broad development prospects and will enter a high-speed development space in the future.

4 Key Decision Elements of BYD's Entry into Thailand EV Market

4.1 BYD is the Strongest Comprehensive EV Manufacturer in China

As is shown in Table 3, BYD will showcase its strong capabilities in 2024. Revenue reached 777.02 billion yuan, a year-on-year increase of 29.02%, far exceeding Tesla's revenue during the same period; The net profit attributable to the parent company was 40.254 billion yuan, a year-on-year increase of 34.00%, and the profitability continued to optimize. The revenue of the automotive business is about 617.382 billion yuan, accounting for 79.45%. The global sales volume is about 4.2721 million vehicles, a year-on-year increase of 41.26%, and it has won the championship of new energy vehicle sales in China and the world. The R&D investment reached 542 billion yuan, a

year-on-year increase of 36%, far exceeding the total of four car companies including Geely and NIO, surpassing Tesla by 21.9 billion yuan, and accumulating over 180 billion yuan, with frequent technological innovation achievements. Cash reserves reached a record high of 154.94 billion yuan, with interest bearing liabilities accounting for only 4.9%, the lowest level in the industry.

Table 3. BYD Financial Performance

Unit: billion CNY							
Year	2026E	2025E	2024A	2023A	2022A	2021A	2020A
Summary of Income Statement							
Gross revenue	1,147.25	970.30	777.10	602.32	424.06	216.14	156.60
Total operating cost	932.94	789.63	737.94	567.68	401.19	212.60	149.01
Operating profit	82.71	67.43	50.49	38.10	21.54	4.63	7.09
Total profit	82.32	67.12	49.68	37.27	21.08	4.52	6.88
Net profit	/	/	41.59	31.34	17.71	3.97	6.01
Net profit attributable to shareholders of the parent company	66.70	53.98	40.25	30.04	16.62	3.05	4.23
Year on year (%)	23.55	34.11	34.00	80.72	445.86	-28.08	162.27
R&D expenditure	/	/	54.16	39.92	20.22	10.63	8.56
EBIT	87.41	70.55	49.98	34.59	21.15	6.50	11.59
EBITDA	157.24	131.61	116.88	78.14	41.52	20.61	24.11
Summary of Balance Sheet							
Current assets	/	/	370.57	302.12	240.80	166.11	111.61
Fixed assets	/	/	262.29	230.90	131.88	61.22	54.58
Total assets	/	/	783.36	679.55	493.86	295.78	201.02
Current liabilities	/	/	495.99	453.67	333.34	171.30	106.43
Non-current liability	/	/	88.68	75.42	39.13	20.23	30.13
Total liabilities	/	/	584.67	529.09	372.47	191.54	136.56
Shareholders' equity	/	/	198.69	150.46	121.39	104.24	64.45
Summary of Cash Flow Statement							
Net cash flow from operating activities	/	/	133.45	169.73	140.84	65.47	45.39
Net cash flow from investing activities	/	/	-129.08	-125.66	-120.60	-45.40	-14.44
Net cash flow from financing activities	/	/	-10.27	12.82	-19.49	16.06	-28.91
Key Ratio							
ROE (Diluted) (%)	23.70	24.04	21.73	21.64	14.97	3.20	7.45
ROA (%)	6.36	6.03	5.69	5.34	4.49	1.60	3.03
ROIC (%)	/	/	18.64	17.72	12.06	3.90	6.59
Sales gross profit margin (%)	20.32	20.21	19.44	20.21	17.04	13.02	19.38
Sales net profit margin (%)	/	/	5.35	5.20	4.18	1.84	3.84
Asset liability ratio (%)	/	/	74.64	77.86	75.42	64.76	67.94
Asset turnover ratio (times)	/	/	1.06	1.03	1.07	0.87	0.79

Source: Wind Terminal

In 2024, BYD achieved remarkable results in its overseas business. Its overseas revenue reached 221.9 billion yuan, a YoY increase of 38%. The export volume was 417,000 vehicles, surging by 71.8% year - on - year. Its business covers more than 100 countries and regions.

In the Southeast Asian market, BYD is accelerating its penetration and the release of local production capacity. The Thai factory has been put into production. In 2024, BYD topped the list of registered car sales in Thailand, with a market share of 38.5%. In Malaysia, BYD outperformed brands like Tesla and became the best - selling electric vehicle brand. In the Philippines, the Atto3 model ranked first in pure electric vehicle sales. In addition, the planned factory in Indonesia with an annual production capacity of 150,000 vehicles may become a new growth point. BYD has a broad development prospect in the Southeast Asian market.

4.2 Decision Elements Based on Market Demand

4.2.1 Target Market Positioning.

The Thai EV market presents characteristics of mid to low end dominance, youthfulness, and family-oriented trends.

(1) Consumption ability

Thai households have a debt to GDP ratio of 91.8% (2024 data), with an increasing proportion of the middle class but high price sensitivity. The core car purchase budget is concentrated at 700 thousand to 1.5 million Thai baht. The BYD ATTO 3 (Yuan PLUS) is priced at 1.1 million Thai baht, accurately covering the mid-range market, with a market share of 38.5% by 2024.

(2) Requirement stratification

Family users: prefer compact SUVs with a range of over 300 kilometers and affordable prices (such as Dolphin, which sells 13,386 units per month).

Young people: Focus on intelligent configuration, AION Y Plus (supporting L2 assisted driving) has exceeded 1,000 orders in its first month of launch.

Commercial market: The Thai government plans to increase the proportion of electric taxis to 30% by 2030, and BYD's plug-in hybrid pickup truck plan (extending over 800 kilometers) fills the gap in the transformation of Japanese fuel pickup trucks.

The author noticed that in 2024, 70% of BEV sales in Thailand were models priced between 150,000 and 250,000 yuan, with BYD accounting for 41%.

4.2.2 Product Planning and R&D Direction.

(1) Product matrix strategy

Main models: Dolphin (small car), ATTO 3 (compact SUV), Sealion 6 (plug-in hybrid SUV) cover 70% of the segmented market.

High end breakthrough: By 2025, we plan to introduce the high-end U8 (priced at over 3 million Thai baht) to test the luxury market.

(2) Localization and adaptation of technology

High temperature battery technology: Optimize battery cooling system to extend cycle life in high-temperature environments (average annual temperature in Thailand is 28-35 °C).

Development of right-hand drive models: 100% of the models are adapted to right-hand drive habits, reducing modification costs.

Intelligent Internet Connection: Equipped with Di-Link 5.0 system (supporting Thai voice interaction), the selection rate for Thai users will exceed 40% by 2024.

The author noticed that BYD Thailand factory has put into production the Song PLUS DM-i (Sealion 6), a plug-in hybrid model with a range of 1200 kilometers, directly impacting the Japanese hybrid market.

4.3 Decision elements based on competitive landscape

4.3.1 Competitive Strategy Selection.

(1) Differentiated core barriers

Blade battery technology: puncture non ignition characteristic (compared to Japanese ternary lithium batteries), with a battery safety accident rate of 0% in 2024.

Cost advantage: Vertical integration of the supply chain reduces bicycle costs by 20% compared to Japanese competitors (such as ATTO 3 compared to Toyota bZ4X).

(2) Brand image shaping

Focusing on "safety+cost-effectiveness", the 2024 Thai consumer survey shows that BYD's brand awareness has increased from 15% to 48%.

The author noticed that Toyota's bZ4X will only sell 2 units per month in Thailand in 2023, while BYD's ATTO 3 will have an average monthly sales volume of over 2000 units during the same period.

4.3.2 Supply Chain and Localization Strategy.

(1) Localization of production

The annual production capacity of the Luo Yongfu factory is 150000 vehicles, and the localization rate of components has been increased from 40% to 70% (target by 2030).

Cooperate with WHA Weihua Group to build charging stations, and by 2024, the charging network in Thailand will cover 77 provinces.

(2) Supply chain collaboration

Local procurement: Non-core components such as seats and wiring harnesses are 100% localized (compared to Tesla's 50% import dependence).

Policy dividend: Enjoy tax relief under the EV3.5 plan (8-year exemption from corporate income tax), and reduce bicycle costs by 12%.

The author noticed that in 2024, BYD's Thailand factory will localize the production of battery cells, resulting in an 18% decrease in battery pack costs.

4.4 Comprehensive consideration of risks and response strategies

4.4.1 Policy Risks and Responses.

(1) Subsidy reduction risk

The subsidy for Thailand's EV3.5 program will continue until 2027, but the subsidy amount may be reduced by 50% after 2025.

Response strategy: Accelerate localization rate to over 60% to hedge costs (such as batteries and motors produced in Thailand).

(2) Trade barriers

The EU plans to impose a countervailing duty (up to 38.1%) on Chinese EVs, threatening Thailand's position as an export hub.

Response strategy: Utilize the zero tariff policy of the ASEAN Free Trade Agreement (AFTA) to expand the export share of Malaysia and Indonesia.

4.4.2 Market Risk and Response.

(1) Insufficient charging facilities

The density of charging stations in Thailand is only 0.3 per square kilometer (compared to 2.1 in China).

Response strategy: Cooperate with Energy Absolute to build 1000 supercharging stations (charging to 80% in 30 minutes) by 2025.

(2) Consumer habit resistance

42% of Thai consumers are concerned about battery life (2024 survey).

Response strategy: Launch an 8-year/160000 kilometer battery warranty, exceeding industry standards (5 years/100000 kilometers).

4.4.3 Competition Risk and Response.

(1) Japanese EV counterattack

Toyota plans to produce solid-state battery models in Thailand by 2025, while Honda launches N-VAN at a price of only 900000 Thai baht.

Response strategy: Mass produce second-generation blade batteries by 2025 (with a 30% increase in energy density) to consolidate the technological gap.

(2) Internal competition among Chinese EV peers

Nezha and Great Wall have a combined market share of over 25% in Thailand, intensifying the price war.

Response strategy: Differentiated layout in the plug-in hybrid market (such as Sealion 6), avoiding the red ocean of pure electricity prices.

4.5 Supplementary Decision-Making Based on Consumer Perception, Purchase Motivation, and Consumption Habits

Consumer perception biases, priority of motivations, and behavioral habits are key non-policy factors influencing BYD's penetration in the Thai EV market. Targeted strategies tailored to local characteristics are therefore essential.

4.5.1 Consumer Perception: Addressing "Technology Distrust" and "Brand Unfamiliarity".

Thai consumers still face two core pain points in their perception of EVs, which directly hinder their purchase decisions. Concerns about technical safety: 42% of consumers worry about the risk of battery combustion in high-temperature environments (2024 survey by the Thailand EV Association), and 38% believe that batteries from Chinese brands have a shorter lifespan than those from Japanese brands. This creates a perception gap with the actual safety performance of BYD's blade batteries. Shortcomings in brand awareness: Although BYD's brand awareness rose to 48% in 2024, it still lags behind Japanese brands such as Toyota (92%) and Honda (85%). Additionally, 27% of consumers mistakenly believe that "EVs are only suitable for short-distance travel," showing insufficient awareness of long-range EV models. To tackle these issues, a dual approach of "scenario-based experience+authoritative endorsement" is required. For instance, set up "High-Temperature Battery Safety Laboratory" experience zones in core cities like Bangkok and Chiang Mai to demonstrate on-site puncture tests of blade batteries. Collaborate with Thailand's Ministry of Industry to release a White Paper on EV Battery Lifespan, using local test data (e.g., the cycle life of BYD's blade batteries exceeds 2,000 cycles in Thailand's high-temperature environment) to dispel perception biases.

4.5.2 Purchase Motivation: Economic Cost as Priority, Environmental Demand as Supplement.

Thai consumers' motivation for purchasing EVs is distinctly "pragmatism-oriented," differing from the "environmental priority" observed in European and American markets. Core motivations: 73% of car buyers rank "low annual usage cost" as the top reason (the annual cost of EVs is approximately 20,000 Thai baht, only 30% of that of fuel vehicles), followed by "policy subsidy deductions" (58%), while "environmental contribution" ranks third (31%). Motivational differences: Middle-class families pay more attention to "space and range" (preferring compact SUVs such as the ATTO 3), young people (aged 25–35) regard "intelligent features" (e.g., Di-Link voice interaction) as a key decision factor, and commercial customers (e.g., taxi companies) prioritize "maintenance costs and warranty policies." Based on this, BYD needs to emphasize the communication of "economic benefits" in its marketing. For example, launch an H5 tool called "Fuel Vehicle vs. EV Cost Calculator" to help consumers intuitively see that they can save approximately 150,000 Thai baht over 5 years. For commercial customers, introduce a "battery leasing program" to reduce the down payment for car purchases by 40%, while bundling an 8-year/160,000-kilometer warranty to align with their core demands.

4.5.3 Consumption Habits: Reliance on Offline Experience and the "Acquaintance Recommendation" Effect.

Thai consumers' car purchase habits exhibit distinct local characteristics, making online conversion relatively difficult. Channel preference: 85% of consumers confirm their purchase intention through "offline 4S store test drives" and prefer "one-stop

services" (e.g., on-site application for subsidies, insurance purchase), while only 12% complete vehicle orders through online channels. Influences on decision-making: "Acquaintance recommendations" are a key influencing factor (62% of consumers refer to the EV usage experience of relatives and friends), followed by "local KOL reviews" (49%), while the impact of official advertisements is only 23%. In response, it is necessary to optimize offline touchpoints and word-of-mouth communication. On one hand, add "BYD Experience Centers" in core business districts of cities like Bangkok and Pattaya, equipped with Thai-speaking shopping guides and localized service teams to provide end-to-end assistance covering "test drive – subsidy application – license plate registration." On the other hand, launch the "EV Owner Recommendation Program," where existing owners can receive a 20,000 Thai baht charging card for successfully referring new customers, leveraging the acquaintance network to expand the user base.

5 Conclusions

5.1 Research Conclusions

(1) Market Demand Drivers: Thailand's EV growth is fueled by subsidies (e.g., THB 50,000–100,000 purchase incentives), economic pressures (high fuel costs), and technological progress. BEV penetration reached 14% in 2024, projected to rise to 30% by 2030.

(2) BYD's Competitive Edge: BYD dominates Thailand's EV market through vertical supply chain integration, localized production (150,000 annual capacity by 2025), and differentiated technologies (zero blade battery incidents in 2024).

(3) Risks and Competition: Japanese brands retain advantages in hybrids, while low charging density (0.3 stations/km²) and range anxiety (42% of consumers) pose challenges. Solutions include next-gen blade batteries (2025) and infrastructure partnerships.

5.2 Business Recommendations

(1) Localization Acceleration: Increase component localization in Thai factories to 80% by 2030, reducing tariff reliance and optimizing high-temperature battery performance.

(2) Product Diversification: Strengthen mid-range offerings (e.g., ATTO 3), expand into premium (U8) and commercial segments (plug-in hybrid pickups), and avoid pure-EV price wars.

(3) Charging Ecosystem Development: Partner with Energy Absolute to deploy 1,000 supercharging stations by 2025 and offer extended battery warranties (8 years/160,000 km).

(4) Policy Risk Mitigation: Leverage ASEAN Free Trade Agreement (AFTA) tariffs to boost exports to Malaysia and Indonesia, countering EU anti-subsidy duties.

(5) Brand Reinforcement: Highlight "safety and affordability" through localized marketing (e.g., Thai-language voice interfaces) to elevate brand awareness above 60%.

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