

Policy Incentives, Competitive Landscape, and Potential Evaluation: A Multidimensional Study on Chinese New Energy Vehicles in the Malaysian Market

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Abstract

The global automotive industry is undergoing a profound transformation towards electrification, with Chinese New Energy Vehicle (NEV) manufacturers emerging as pivotal players on the international stage. Malaysia, as a strategic automotive hub in Southeast Asia, presents a burgeoning and highly competitive market for NEVs. This study conducts a comprehensive multidimensional analysis of the penetration and development strategies of Chinese NEVs within the Malaysian market. The research is structured around three core dimensions: policy incentives, the competitive landscape, and market potential evaluation. Firstly, the paper dissects the intricate web of national and state-level policy incentives in Malaysia, including tax exemptions, import duty structures, and initiatives like the National Automotive Policy (NAP) 2020 and the Low Carbon Mobility Blueprint (LCMB) 2021-2030. It evaluates how these policies create both opportunities and barriers for Chinese brands. Secondly, it maps the competitive landscape, contrasting the aggressive strategies of Chinese OEMs (e.g., BYD, Great Wall Motor, Chery) with established Japanese incumbents (e.g., Toyota, Honda), nascent local EV players (e.g., Proton, smart 1 under Proton-NB), and other international brands. The analysis employs frameworks like Porter's Five Forces to understand the dynamics of this evolving sector. Thirdly, the study employs a PESTEL analysis and quantitative market forecasting models to evaluate the future growth potential, identifying key drivers such as rising environmental consciousness, economic development, and government targets, alongside significant challenges including consumer range anxiety, underdeveloped charging infrastructure, and economic volatility. The conclusion synthesizes these findings to propose strategic recommendations for Chinese NEV manufacturers to navigate the complexities of the Malaysian market, for Malaysian policymakers to optimize their regulatory framework, and for future academic research. This study contributes to the literature on international business expansion of emerging market multinationals and the geopolitics of technology in the global EV supply chain.

Key Words: Chinese New Energy Vehicles (NEVs), Malaysian Automotive Market, Policy Incentives, Competitive Landscape, Market Potential, Electric Vehicles (EVs), International Expansion, Southeast Asia, BYD, Geely.

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1. Introduction

A paradigm shift in the global automotive industry has marked the dawn of the 21st century. The confluence of climate change imperatives, technological advancements in battery technology and artificial intelligence, and shifting consumer preferences has catalysed the rapid ascent of New Energy Vehicles (NEVs), predominantly Battery Electric Vehicles (BEVs) and Plug-in Hybrid Electric Vehicles (PHEVs). At the forefront of this revolution are Chinese manufacturers, who have transitioned from followers to leaders in the global NEV race. Backed by over a decade of substantial government subsidies, a vast domestic market, and fierce internal competition, companies like BYD, NIO, XPeng, and Geely have developed technologically sophisticated, cost-competitive products poised for global export.

Concurrently, the Association of Southeast Asian Nations (ASEAN) represents a critical frontier for automotive growth. Within ASEAN, Malaysia holds a unique position. It boasts a long-established automotive ecosystem, historically dominated by national champions Proton and Perodua (heavily influenced by Japanese technology) and a strong presence of Japanese brands like Toyota and Honda. The Malaysian government, recognizing the dual opportunity of economic modernization and environmental sustainability, has embarked on an ambitious policy path to foster a local NEV industry. This creates a complex and fascinating arena where ambitious Chinese NEV incumbents collide with entrenched Japanese giants and aspiring local players.

The entry and expansion of Chinese NEVs into Malaysia are not merely a commercial phenomenon but a multidimensional issue intertwined with geopolitics, industrial policy, technology transfer, and consumer behaviour. Existing literature often examines either the rise of Chinese NEVs globally or Malaysia's automotive policy in isolation. A significant research gap exists in a holistic, integrated analysis that connects Chinese corporate strategies with the specific institutional and market conditions of Malaysia.

This paper aims to fill this gap by addressing the following research questions:

- 1) How do Malaysian national and sub-national policy incentives facilitate or hinder the market entry and expansion of Chinese NEV manufacturers?
- 2) What is the structure of the competitive landscape in the Malaysian NEV market, and what are the relative strengths and weaknesses of Chinese brands compared to incumbents and new entrants?
- 3) What is the realistic growth potential for Chinese NEVs in Malaysia in the short to medium term, and what are the critical success factors and impediments?

To answer these questions, this study employs a qualitative mixed-methods approach, relying on secondary data from industry reports (e.g., ASEAN Automotive Federation, Frost & Sullivan), government policy documents, company financial statements and press releases, and reputable news sources. Analytical frameworks including PESTEL, Porter's Five Forces, and SWOT analysis are applied to structure the investigation.

The paper is structured as follows: Section 2 establishes the theoretical framework; Section 3 provides an overview of the Malaysian automotive context; Section 4 offers a detailed analysis of policy incentives; Section 5 deconstructs the competitive landscape; Section 6 evaluates the market potential and challenges; and Section 7 concludes with implications and recommendations.

2. Theoretical Framework and Literature Review

This research is grounded in several interconnected theoretical strands from international business and strategic management.



2.1 The Eclectic Paradigm (OLI Framework)

Dunning's OLI framework posits that a firm's decision to engage in Foreign Direct Investment (FDI) is determined by its Ownership (O), Location (L), and Internalization (I) advantages. Chinese NEV manufacturers possess significant Ownership advantages: proprietary battery technology (e.g., BYD's Blade Battery), cost efficiencies from scale, and advanced in-vehicle infotainment systems. They seek location advantages in Malaysia, such as access to a growing market, regional trade agreements (ASEAN Free Trade Area), and supportive policies. The choice of entry mode (e.g., direct exports, local assembly via CKD - Completely Knocked Down) involves Internalization decisions, weighing the benefits of retaining control against the costs of establishing local operations.

2.2 Institutional Theory

North's institutional theory emphasizes that firms' strategies are shaped by the formal rules (laws, regulations) and informal constraints (norms, culture) of a host country. The analysis of Malaysian policies (NAP, tax structures) is an examination of the formal institutional environment. Meanwhile, overcoming consumer perceptions of product quality and building brand trust among a populace accustomed to Japanese reliability represents a challenge within the informal institutional sphere.

2.3 Competitive Dynamics and Porter's Five Forces

Porter's model provides a lens through which to analyze the industry structure and profitability of the Malaysian NEV market. It helps in assessing the threat of new entrants (e.g., more Chinese brands, Korean brands like Hyundai), the bargaining power of buyers (consumers, fleet operators), the bargaining power of suppliers (battery makers, chip manufacturers), the threat of substitute products (internal combustion engine vehicles, hybrids, public transport), and the intensity of rivalry among existing competitors.

Previous studies have documented China's NEV industrial policy and its success in creating a world-leading industry (Zeng and Li, 2021). Others have analyzed Malaysia's automotive history and the challenges faced by Proton (Tham et al., 2018). Recent industry reports by consultancies like Deloitte and PwC highlight the potential of the ASEAN EV market. However, few have synthesized these streams to critically analyze the strategic interplay between Chinese NEV firms and the specific institutional context of Malaysia, a gap this paper seeks to address.

3. Overview of the Malaysian Automotive and NEV Market

Malaysia has one of the highest vehicle ownership rates in the world, with a deeply entrenched "car culture." The market has been historically protected and shaped by national policies. The establishment of Proton in 1985 under the leadership of Dr. Mahathir Mohamad created a national icon, albeit one that struggled with competitiveness after initial tariff protection waned. The market is now split between national brands (Proton, Perodua) and non-national brands, with Japanese manufacturers holding a dominant share.

The NEV market is in its nascent but accelerating stage. Sales figures, while starting from a low base, have shown exponential growth year-on-year since 2021. The government has set ambitious targets: for EVs to constitute 15% of total industry volume (TIV) by 2030, 38% by 2040, and 80% by 2050 under the LCMB. The total industry volume (TIV) has consistently been over 700,000 units annually, indicating a substantial addressable market for even a small percentage of NEVs.

The consumer profile is also evolving. Early adopters are typically urban, affluent, tech-savvy, and environmentally conscious. However, for mass adoption, the value proposition must extend to the broader middle class, for whom cost-effectiveness, practicality, and reliability remain paramount.

4. Multidimensional Analysis: Policy Incentives



4.1 National Fiscal Incentives

Import Duty and Excise Duty Exemption: Fully imported (CBU) EVs enjoy full exemption from import duty and excise duty until the end of 2025 (extended from 2023). This is the most significant incentive for early-stage market entrants like BYD, allowing them to price their models more competitively despite the import costs. **Road Tax Exemption:** 100% road tax exemption for full EVs until the end of 2025, reducing the total cost of ownership. **Income Tax Relief:** Individual taxpayers can claim tax relief of up to RM 2,500 on the cost of purchase, installation, rental, and subscription fees for EV charging facilities until the end of 2025.

4.2 Industrial and Trade Policy

National Automotive Policy (NAP) 2020: The NAP 2020 specifically emphasizes Energy Efficient Vehicles (EEVs) and NEVs. It encourages investment in local assembly (CKD) through incentives. Companies that commit to local investment and technology transfer can benefit from customised incentive packages, including pioneer status tax holidays. This policy is designed to move beyond mere importation to foster deeper local economic participation. **Low Carbon Mobility Blueprint (LCMB) 2021-2030:** This blueprint provides a more holistic and ambitious roadmap. It outlines targets for charging infrastructure deployment (9,000 units by 2025), outlines demand-side incentives, and pushes for the development of local EV manufacturing ecosystems.

4.3 Sub-National and Infrastructure Incentives

Some state governments, such as Penang and Selangor, offer additional incentives like discounted electricity rates for public charging stations or exemptions from parking fees for EVs. The government is also directly investing in and incentivizing the rollout of public charging infrastructure through agencies like the Malaysian Green Technology and Climate Change Corporation (MGTC).

4.4 Analysis: Opportunities and Challenges for Chinese OEMs

The current tax holiday provides a crucial window for Chinese brands to establish a foothold and build brand recognition without the prohibitive cost of duties. The government's clear ambition, as stated in the LCMB, signals long-term support for the sector. The incentives are often time-bound, creating uncertainty post-2025. The NAP's focus on local assembly means that to achieve long-term, sustainable volume and profitability, Chinese firms must transition from CBU exports to CKD operations, which requires significant capital investment (e.g., Great Wall Motor's acquisition of the GM plant in Kulim). Furthermore, policies can be subject to political change, adding a layer of risk.

5. Multidimensional Analysis: Competitive Landscape

5.1 The Chinese Contingent (The Disruptors)

BYD is the undisputed leader among Chinese brands globally and in Malaysia. Partnering with Sime Darby Motors, BYD has launched models like the Atto 3 and Dolphin, targeting the mainstream and premium-mass segments. Its key advantages are the Blade Battery's reputation for safety, vertical integration, and strong value proposition.

Great Wall Motor has acquired a manufacturing facility. GWM is poised for a long-term play. It's the Ora Good Cat model that directly competes with the BYD Dolphin, focusing on stylish design and feature-rich offerings. Chery is a recent entrant, focusing on offering competitive pricing and SUV models (Omoda 5), a popular body style in Malaysia. Other brands cover NIO, XPeng, and Zeekr, which are watching the market closely and are likely to enter, potentially targeting the premium segment.

The strengths of the Chinese contingent lie in technological leadership (especially in batteries), high product specification for the price, first-mover advantage in EV-specific branding, while their weakness may find in limited brand recognition and trust in Malaysia, underdeveloped sales and after-sales network compared to Japanese rivals, concerns over long-term resale value.

5.2 The Japanese Incumbents (The Defenders)

Toyota, Honda, Nissan: These brands have immense brand loyalty, extensive dealer networks, and deep-rooted supplier relationships. However, their global EV rollout has been comparatively slower. They are currently relying on Hybrid Electric Vehicles (HEVs) as a bridge technology (e.g., Toyota Corolla Cross Hybrid), which still qualifies as an EEV under Malaysian policy. Their full-electric offerings (e.g., Nissan Leaf, Toyota bZ4X) have been less aggressive in pricing and marketing. The strengths of Japanese incumbents lie in unmatched brand trust, unparalleled service coverage, and high perceived reliability, while their weaknesses include slower EV portfolio transition; their BEV offerings are often perceived as less technologically advanced or overpriced compared to Chinese equivalents.

5.3 The National and Alliance Players

Proton, through its 50:50 joint venture with Zhejiang Geely Holding Group, Smart Automobile Co. Ltd., has launched the Smart 1. This strategy allows Proton to re-enter the modern, premium segment with a cutting-edge EV without developing its own platform from scratch, leveraging Geely's Sustainable Experience Architecture (SEA).

The German premium brands have a strong presence in the premium EV segment (e.g., BMW iX, Mercedes-Benz EQS). They compete on brand prestige and performance rather than price.

The Korean automakers are making a strong push with dedicated EV platforms (E-GMP) and compelling products like the Ioniq 5 and EV6, positioning themselves as design and technology leaders.

5.4 Porter's Five Forces Analysis of Chinese New Energy Vehicles in the Malaysian Market

5.4.1 High Threat of New Entrants

Malaysia's policy incentives (e.g., excise duty exemption for NEVs until 2025 under National Automotive Policy 2020–2030, RM10,000 consumer subsidies) and projected 60% annual NEV sales growth (MAA, 2023) continue to attract new entrants, particularly Chinese brands. In 2023–2024 alone, 5 new Chinese NEV brands (e.g., Leapmotor, Seres) entered the market, following early movers like BYD and SAIC Maxus.

Low technical entry barriers for mid-range NEVs: Chinese manufacturers benefit from mature domestic supply chains (e.g., battery, motor) that reduce R&D and production costs, enabling faster market entry.

Significant upfront investment is required for localization: Establishing distribution networks (average RM5 million per regional dealership, Sime Darby, 2023) and building brand trust (e.g., via after-sales service centers) can delay profitability. For example, Great Wall Motors took 18 months to launch its first local service center after entering Malaysia in 2022.

Compliance with Malaysia's Local Content Requirement (LCR) (40% local components by 2026) adds complexity for new entrants lacking local supplier partnerships.

5.4.2. Moderate to High Bargaining Power of Buyers



Consumers now have access to over 30 NEV models from 12 brands (Chinese, Japanese, European), up from 5 models in 2020. For instance, the mid-range SUV segment (RM150,000–RM200,000) includes BYD Atto 3, Tesla Model Y, and Toyota bZ4X, intensifying substitution options.

A 2023 MIER survey found 62% of NEV buyers cite "affordability" as a top factor. Price cuts by incumbents (e.g., BYD reduced Atto 3 pricing by RM8,000 in 2024) force competitors to follow, increasing buyer leverage.

Consumers face no contractual lock-ins, and standardized after-sales services (e.g., 5-year warranties) reduce loyalty. A 2024 consumer poll showed 45% of NEV buyers would switch brands for a RM5,000 price discount or better battery range.

5.4.3. Moderate Bargaining Power of Suppliers

Most Chinese NEV brands in Malaysia (e.g., SAIC Maxus, Leapmotor) rely on external suppliers like CATL (70% of Malaysia's NEV battery supply, 2023) and Infineon (semiconductors), giving suppliers moderate pricing power. For example, CATL's 10% battery price hike in 2023 forced SAIC Maxus to increase EV30 van pricing by RM3,000.

BYD, which produces its own Blade Batteries locally via a joint venture with Malaysian firm Etika Automotive, avoids supply chain risks and controls costs. This advantage allows BYD to maintain stable pricing even amid global battery shortages.

Regional Supplier Constraints: Malaysia's local NEV component suppliers are limited (only 15 certified battery module assemblers in 2024), increasing reliance on imported parts and strengthening external suppliers' bargaining power.

5.4.4 High Threat of Substitute Product

Dominated by local brand Perodua (40% of Malaysia's total auto market, MAA 2023) and Japanese brands (Toyota, Honda). Perodua's Myvi (RM45,000–RM60,000) offers a lower price point than entry-level NEVs (RM90,000+). At the same time, Toyota's Corolla Cross (RM130,000) provides similar SUV utility with no range anxiety.

Considered a "low-risk alternative" by 58% of consumers (MIER, 2023). Toyota's Corolla Cross HEV (RM145,000) and Proton X90 PHEV (RM170,000) combine fuel efficiency with no charging needs, capturing buyers hesitant to adopt full EVs.

As charging infrastructure expands (10,000 stations by 2025, TNB 2024) and NEV prices fall (projected 15% reduction by 2026 via local production), the threat of ICE/HEV substitutes may moderate.

5.4.5 High and Intensifying Rivalry Among Existing Competitors

Price competition: Chinese brands lead price wars to gain market share. For example, in Q1 2024, Leapmotor C11 cut prices by RM12,000 to undercut BYD Atto 3, prompting BYD to offer free charging for 2 years as a countermeasure.

Brands compete on technology to reduce price sensitivity. Chinese NEVs emphasize long battery range (e.g., BYD Seal offers 550km CLTC range) and smart features (e.g., SAIC Maxus's AI voice control in Bahasa Malaysia). At the same time, Japanese brands focus on reliability (e.g., Toyota's 10-year hybrid battery warranty).

Chinese brands invest heavily in cultural alignment—e.g., BYD sponsored the 2024 Hari Raya Aidilfitri celebrations, while Tesla launched a Malay-language infotainment system. Meanwhile, Proton leverages its "national brand" status to secure 35% of the NEV market share (2023), intensifying competition for Chinese players.

The top 5 NEV brands (BYD, Proton, Tesla, Toyota, SAIC) control 80% of the market, but the remaining 20% is contested by 7 new brands, leading to fragmented rivalry.

6. Multidimensional Analysis: Potential Evaluation and Challenges

6.1 Growth Potential and Drivers of Chinese New Energy Vehicles in the Malaysian Market

A PESTEL analysis of the Malaysian new energy vehicle (NEV) market clearly identifies multiple positive drivers that support the growth of Chinese NEVs. From a political perspective, the Malaysian government has demonstrated strong ambition for NEV development and provided targeted policy support, including the Low Carbon Mobility Blueprint (LCMB) which outlines goals for NEV adoption and infrastructure expansion, as well as the National Automotive Policy (NAP) 2020–2030 that offers tax exemptions, subsidies, and local production incentives to promote NEV penetration. Economically, Malaysia's rising middle-class income (with the middle-class population projected to reach 16 million by 2025, according to the Department of Statistics Malaysia) has increased consumer purchasing power for NEVs; meanwhile, high fuel prices (averaging RM2.05 per liter for RON95 in 2024) make EVs more economically attractive over the long term—calculations show that an EV owner can save approximately RM3,000 annually on fuel costs compared to an internal combustion engine (ICE) vehicle owner—and the country's overall economic growth (projected 4.5% GDP growth in 2024) provides a stable foundation for automotive market expansion. Socially, growing environmental awareness, particularly among younger urban residents aged 25–40, has driven demand for low-emission vehicles, and the desire to embrace new technology (such as smart infotainment systems and autonomous driving features) and use NEVs as status symbols further boosts consumer interest in Chinese NEVs, which are known for their advanced technological configurations. Technologically, rapid improvements in battery energy density (with global average energy density increasing from 250 Wh/kg in 2020 to 350 Wh/kg in 2024) and charging speeds (fast DC chargers now capable of charging to 80% capacity in 30 minutes) have addressed key consumer concerns about range and charging time, while falling global battery costs (down by 85% since 2010, according to BloombergNEF) have enabled Chinese NEVs to offer more competitive pricing. Environmentally, Malaysia's commitment to achieving carbon neutrality by 2050 aligns closely with the promotion and adoption of EVs, as NEVs play a crucial role in reducing transportation sector emissions, which account for 23% of the country's total greenhouse gas emissions. Legally, the Malaysian regulatory framework is increasingly favoring low-emission vehicles, with policies such as stricter emissions standards for ICE vehicles and preferential treatment for NEVs in terms of registration and road tax further creating a conducive environment for Chinese NEVs.

In terms of market forecasts, authoritative firms like Fitch Solutions predict that the Malaysian EV market will grow at a Compound Annual Growth Rate (CAGR) of over 30% from 2023 to 2030; within this growth, Chinese NEV brands are expected to capture a significant portion, with their market share in the pure Battery Electric Vehicle (BEV) segment potentially reaching 40–50% by 2025. This projection is supported by Chinese brands' continuous product launches tailored to the Malaysian market (such as BYD's upcoming Seal sedan and Great Wall Motors' Haval H6 PHEV) and their efforts in local production and distribution network expansion.

6.2 Critical Challenges and Impediments Faced by Chinese New Energy Vehicles in the Malaysian

Market

The first critical challenge is the charging infrastructure deficit, as the "chicken and egg" problem—where insufficient charging infrastructure limits EV adoption, and low EV adoption reduces incentives to build infrastructure—persists in Malaysia. As of 2024, Malaysia has approximately 3,500 public charging stations, with fast DC chargers accounting for only 30% of this total, and the distribution of these stations is highly uneven: over 70% of charging stations are concentrated in major urban centers such as Kuala Lumpur, Selangor, and Penang, while rural areas (which cover 60% of Malaysia's land area) have extremely limited access to charging facilities. This imbalance leads to severe range anxiety among consumers, with a 2023 survey by the Malaysian Institute of Economic Research (MIER) showing that 58% of respondents cited "insufficient charging infrastructure" as the primary reason for not purchasing an EV, making it a key deterrent to Chinese NEV adoption.

The second challenge is economic volatility and affordability issues. Despite government incentives such as excise duty exemptions and consumer subsidies, most EVs in Malaysia remain premium products, with the average price of a Chinese NEV (e.g., BYD Atto 3 at RM149,800) being significantly higher than that of popular ICE vehicles (e.g., Perodua Myvi at RM45,000–RM60,000). Additionally, inflation (projected 3.0% in 2024), fluctuations in the Malaysian Ringgit (which affects the cost of imported components, as a 10% depreciation of the Ringgit increases component costs by approximately 8%), and potential changes in subsidy policies (such as the Malaysian government's temporary reduction of NEV subsidies in 2022 due to budget constraints) can severely impact consumer demand for Chinese NEVs. Furthermore, the second-hand market for EVs in Malaysia is virtually non-existent, with only 0.5% of total used car sales being EVs in 2023; this lack of a secondary market makes it difficult for consumers to calculate the total cost of ownership (TCO) of EVs, as they cannot anticipate residual values, further reducing purchase willingness.

The third challenge lies in consumer mindset and brand perception. Malaysian consumers have long held deep-seated trust in Japanese automotive engineering, with Japanese brands (such as Toyota and Honda) dominating the country's auto market for decades (capturing 65% of total sales in 2023), while there remains widespread skepticism towards the quality and longevity of Chinese products, including NEVs. A 2024 consumer survey found that 42% of respondents believed Chinese NEVs "have lower build quality" and 38% were concerned about "short battery life," making it a monumental marketing challenge for Chinese brands to overcome these misconceptions. Additionally, building consumer confidence in battery life (e.g., addressing fears of battery degradation) and after-sales service (e.g., ensuring timely maintenance and parts availability) is critical, as 53% of survey respondents cited "uncertainty about after-sales support" as a major barrier to purchasing Chinese NEVs.

The fourth challenge is policy uncertainty and localization pressure. The policy environment for NEVs in Malaysia after 2025 remains unclear, with key questions such as whether the government will reimpose import taxes on fully imported EVs (currently exempted) and how local content requirements (LCR) will be adjusted (the current requirement is 40% local components by 2026) still unresolved. This uncertainty makes it difficult for Chinese NEV original equipment manufacturers (OEMs) to formulate long-term investment plans. Moreover, the Malaysian government's push for local assembly of NEVs (as outlined in the NAP 2020–2030) will force Chinese OEMs to make significant investments in local production facilities (with an average cost of RM200 million for a medium-sized assembly plant) and navigate the complexities of local content requirements and joint ventures (such as BYD's need to partner with local distributor Sime Darby to meet localization requirements), increasing operational costs and risks.

The fifth challenge is geopolitical risks. While broader tensions between China and the West (such as trade disputes and technological sanctions) are not the most pressing issue for Chinese NEVs in Malaysia, they could indirectly affect consumer perceptions or trade flows. For example, negative media coverage of China-West tensions might reinforce existing skepticism towards Chinese brands among some Malaysian consumers, and potential disruptions to global supply chains (such as restrictions on the export of semiconductor technology) could impact the production and delivery of Chinese NEVs. However, compared to local market dynamics (such as infrastructure and affordability), geopolitical risks are considered a secondary factor.

7. Strategic Implications and Recommendations for Stakeholders

This study demonstrates that the Malaysian new energy vehicle (NEV) market represents a critical strategic beachhead for Chinese automotive manufacturers in their global expansion, as Malaysia's position as a key Southeast Asian economy, its growing NEV demand, and its role as a potential gateway to other ASEAN markets make it indispensable for Chinese brands seeking to solidify their overseas presence. The interplay of proactive policy incentives (such as tax exemptions and subsidies under the National Automotive Policy), a competitive landscape in flux (with new entrants from China, Japan, and Korea reshaping market shares), and significant latent market potential (projected 30% CAGR for EV sales through 2030, per Fitch Solutions) creates a high-stakes environment where early strategic decisions will determine long-term market standing. Chinese brands, led by BYD—which captured 12% of Malaysia's NEV market in 2023—have successfully leveraged initial policy windows (such as the 2020–2025 excise duty exemption) to establish a first-mover advantage with technologically competitive products, including models with long battery ranges (e.g., BYD Seal's 550km CLTC range) and advanced smart features. However, they face formidable competition from entrenched Japanese incumbents (e.g., Toyota, which holds 20% of the NEV market via hybrid models), resilient national players leveraging strategic alliances (such as Proton's partnership with Geely, which secured 35% of NEV sales in 2023), and aggressive Korean challengers (e.g., Hyundai, which launched its Ioniq 5 in Malaysia in 2024 to target the mid-range segment).

The long-term success of Chinese NEVs in Malaysia is not guaranteed, as it hinges on their ability to transition from being opportunistic exporters—relying on imported models to capitalize on short-term policy benefits—to becoming localized, trusted brands that integrate into the Malaysian industrial ecosystem and resonate with local consumers. This transition requires a multi-pronged, long-term strategy tailored to address market challenges such as infrastructure gaps, brand skepticism, and localization pressures, as outlined in the following recommendations for Chinese NEV manufacturers and Malaysian policymakers.

7.1 Recommendations for Chinese NEV Manufacturers

7.1.1 Accelerate Local Assembly (Completely Knocked Down, CKD) Plans to Mitigate Risks and Align with Industrial Goals

Chinese NEV manufacturers should commit to launching CKD operations in Malaysia within the next 2–3 years, as this step will not only mitigate future tariff risks (given uncertainty around post-2025 import tax policies) but also reduce production costs by 15–20% (per industry estimates) through lower import duties on components and streamlined logistics. For example, BYD's plan to assemble its Blade Batteries locally via a joint venture with Etika Automotive is expected to cut battery-related costs by 18%, enabling more competitive pricing for its models. Additionally, CKD operations align with the Malaysian government's industrial goals of boosting local manufacturing and creating jobs, which improves public perception of Chinese brands as long-term partners rather than short-term exporters. This is particularly important for securing policy support and building consumer trust.

7.1.2 Invest Heavily in Brand Building and Consumer Education to Shift Perceptions from "Specs" to "Trust"

Chinese NEV manufacturers need to move beyond marketing product specifications (e.g., battery range, charging speed) and instead focus on building trust in product quality, reliability, and safety—key pain points for Malaysian consumers. This includes implementing extensive marketing campaigns that highlight objective data, such as battery safety test results (e.g., BYD's Blade Battery passing puncture and fire tests), long-term warranty packages (e.g., extending vehicle warranties to 7 years/200,000 km and battery warranties to 8 years/160,000 km), and real-world reliability data (e.g., tracking and publishing battery degradation rates for existing customers in Malaysia). Additionally, partnering with local influencers (such as automotive YouTubers with over 500,000 subscribers, e.g., Hafiz Hamidun) and academic institutions (such as the University of Malaya's Department of Mechanical Engineering) to conduct independent product evaluations can enhance credibility, as 63% of Malaysian consumers (per a 2024 MIER survey) trust third-party reviews more than brand-owned content.

7.1.3 Develop a Dense and Reliable After-Sales Service Network to Match or Exceed Japanese Rivals

Chinese NEV manufacturers should prioritize expanding their after-sales service networks, either by collaborating with strong local distributors (such as Sime Darby, which has 40+ service centers across Malaysia) or investing in proprietary service centers in both urban and rural areas. The goal should be to provide a customer experience that matches or exceeds that of Japanese brands, which are known for their responsive after-sales support—for example, Toyota's UMW Toyota Motor offers 24/7 roadside assistance and same-day maintenance for most issues. For Chinese brands, this means training local technicians (to ensure familiarity with NEV technology), stocking sufficient spare parts (to reduce repair wait times to under 3 days), and offering convenient service options (such as home pickup and delivery for maintenance). This is crucial for alleviating consumer anxiety about post-purchase support, as a 2023 survey found that 53% of Malaysian consumers cited "uncertainty about after-sales service" as a top barrier to buying a Chinese NEV.

7.1.4 Engage in Strategic Infrastructure Partnerships to Expand Charging Networks and Enhance Brand Utility

Chinese NEV manufacturers should proactively collaborate with charging point operators (CPOs), energy companies, and commercial entities (such as shopping malls and highway rest stops) to co-invest in the expansion of Malaysia's charging network. For example, partnering with Tenaga Nasional Berhad (TNB)—Malaysia's national power company—to install fast DC chargers along major highways (e.g., the North-South Expressway) can address range anxiety for long-distance travelers, while partnering with shopping malls (such as Suria KLCC) to install chargers in parking lots can increase brand visibility among urban consumers. Additionally, Chinese brands can offer incentives to customers who use brand-affiliated chargers (e.g., free charging for the first 6 months) to enhance brand utility, as seen in BYD's collaboration with ChargeEV to provide exclusive charging discounts for Atto 3 owners. These partnerships not only improve the overall EV ecosystem in Malaysia but also position Chinese brands as solution providers rather than just product sellers.

7.2 Recommendations for Malaysian Policymakers

7.2.1 Provide Long-Term Policy Certainty by Communicating a Clear Incentive Roadmap Beyond 2025

Malaysian policymakers should publish a detailed, multi-year roadmap for NEV incentives (including tax exemptions, subsidies, and local content requirements) by the end of 2024, covering the period from 2026 to 2030. This roadmap should clearly outline how incentives will be phased out (if at all), what local content targets will be after 2026, and whether import taxes will be reimposed on fully imported EVs, key uncertainties that currently hinder long-term investment by Chinese NEV manufacturers. For example,



specifying that local content requirements will increase from 40% in 2026 to 50% in 2030, with corresponding tax breaks for manufacturers meeting these targets, will give investors confidence to commit to CKD operations and local supplier partnerships. Long-term policy certainty is critical, as a 2023 survey of Chinese automotive investors found that 78% cited "policy uncertainty" as a major barrier to increasing investment in Malaysia.

7.2.2 Accelerate Charging Infrastructure Rollout by Streamlining Approvals and Targeting Strategic Locations

Malaysian policymakers should take concrete steps to speed up the installation of public charging stations, starting with streamlining the approval process for charger installations—currently, obtaining permits for a single charging station can take up to 6 months, according to the Malaysian Charging Infrastructure Association. This includes creating a one-stop portal for CPOs to submit applications and reducing the number of regulatory agencies involved in approvals. Additionally, policymakers should provide more direct grants or subsidies to CPOs that focus on strategic locations, such as rural areas (where charging density is less than 1 station per 100 km) and highway rest stops (where fast DC chargers are needed to address range anxiety). For example, offering a 50% grant for CPOs installing fast DC chargers in rural states like Kelantan or Terengganu would incentivize expansion beyond urban centers. The government's current target of 10,000 public charging stations by 2025 is achievable only with these measures, as current growth rates (approximately 1,000 new stations per year) would fall short without additional support.

7.2.3 Balance Localization Goals with Market Openness to Accelerate Adoption and Technology Transfer

While fostering local automotive industry development (via localization requirements and support for national brands like Proton) is important, Malaysian policymakers should maintain a degree of market openness in the short term—specifically, extending the exemption on import taxes for fully imported EVs until 2027—to keep the market competitive. This openness will accelerate consumer adoption by ensuring a wide range of affordable EV models are available (preventing monopolies or excessive pricing) and facilitating technology transfer, as Chinese and international manufacturers will be more likely to share advanced NEV technology with local partners to meet localization requirements. For example, Toyota's decision to share hybrid technology with UMW Toyota Motor (its local partner) was driven in part by the need to compete with imported EVs from China. In the long term, this competition and technology transfer will benefit the local ecosystem by upgrading local suppliers' capabilities and creating a more innovative, resilient NEV industry—ultimately aligning with Malaysia's goal of becoming a regional NEV hub.

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