

Strategic Analysis and Synergy Research of BYD's Greenfield Investments in Southeast Asia

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Abstract:

This paper focuses on BYD's greenfield investment strategy in Southeast Asia. Using the OLI (Operational Licensing Inequality) theory of international production, it deeply analyzes the underlying logic behind the company's investment decisions and explores the driving and synergistic role played by the tourism industry in this process. The results indicate that BYD ultimately chose the greenfield investment model, leveraging its advantages in ownership, location, and internalization. Southeast Asia's developed tourism industry, in terms of consumer education, improved infrastructure, and an optimized policy environment, provided key support for BYD's local market expansion. Together, these two factors fostered a virtuous cycle of "industrial investment - green transformation - tourism upgrading." Furthermore, this paper identifies BYD's current internal and external challenges and potential risks, and proposes corresponding practical recommendations and future research directions. The paper hopes to provide theoretical support and practical guidance for Chinese new energy vehicle companies in expanding into overseas markets.

Keywords: BYD; Southeast Asia; greenfield investment; OLI theory; tourism industry synergy.

1. Introduction

1.1 Research Background and Problem Statement

As the global automotive industry shifts toward electrification and intelligentization, Southeast Asia, with its vast market potential, generous policy support, and solid industrial foundation, has become

a key region for new energy vehicle companies to expand into overseas markets. As a leading Chinese new energy vehicle company, BYD has accelerated its greenfield investment in Southeast Asia since 2022. Its factory in Rayong, Thailand, officially commenced production in 2024, marking a new phase in the company's localization strategy. However, why did BYD choose greenfield investment as its model for entering the Southeast Asian market? Beyond the

traditional factors of market demand and policy support, did Southeast Asia's developed tourism industry play a unique role in the company's investment decisions and market expansion? These questions form the starting point of this study.

1.2 Research Purpose and Significance

This study aims to apply the OLI International Production Eclectic Theory to systematically analyze BYD's strategic approach to greenfield investment in Southeast Asia, quantitatively evaluate the synergies brought about by the tourism industry, and identify the risks and challenges involved. This research aims to provide theoretical reference and practical guidance for Chinese new energy vehicle companies entering overseas markets. On a theoretical level, this study can enrich the application of OLI theory in emerging industries and specific regional contexts. On a practical level, it can help Chinese automotive companies optimize their overseas investment strategies and enhance their competitiveness in the international market.

1.3 Research Methodology and Framework

This paper employs a case study approach, focusing on BYD's greenfield investment in Southeast Asia as a single case study. Combining secondary data (including company annual reports, industry analysis reports, and government documents) with primary interviews with industry experts and practitioners, a research framework consisting of "theoretical foundation - investment decision analysis - synergy assessment - risk identification - conclusions and implications" is established to ensure a systematic and scientific research process.

2. Theoretical Foundations and Literature Review

2.1 Overview of the OLI Theory of International Production Eclecticism

Proposed by Dunning in 1977, the OLI theory posits that firms must possess both ownership and locational advantages to engage in outbound direct investment. Ownership advantages encompass core competitive advantages such as technology, brand influence, and management capabilities; locational advantages encompass factors such as the host country's market size, policy environment, and resource endowment; and internalization advantages emphasize the firm's ability to reduce external market transaction costs by organizing transactions internally. These three advantages interact to determine a firm's investment model and location [1].

2.2 Research on Overseas Investment by New

Energy Vehicle Companies

Existing literature primarily explores the motivations for overseas investment by new energy vehicle companies, the models they employ, and the factors influencing investment decisions. Some studies, grounded in traditional FDI theory, analyze how new energy vehicle companies leverage technological innovation and cost control advantages to expand into overseas markets [2]. Other studies focus on the impact of differences in policy environments and cultural backgrounds on investment decisions [3]. However, relatively little research has examined the synergistic effects between the new energy vehicle industry and host country-specific industries (such as tourism), leaving room for further research in this article.

2.3 Research on the Synergistic Development of Tourism and Related Industries

Tourism, as a comprehensive industry, is closely linked to multiple sectors, including transportation, accommodation, and catering. Previous studies have explored the synergistic development models between tourism and traditional transportation industries (such as aviation and railways), as well as the role tourism plays in driving regional economic development [4]. However, research on the integrated development of tourism and the new energy vehicle industry, particularly the impact of tourism on the overseas investment strategies of new energy vehicle companies, remains insufficient.

3. BYD's Investment Status and Background in Southeast Asia

3.1 BYD Company Overview and Global Layout

Founded in 1995, BYD has evolved from battery manufacturing and vehicle production to building a comprehensive new energy vehicle industry chain. It possesses core competitive technological advantages in key areas such as battery technology (such as blade batteries), electric platforms (such as the e-Platform 3.0), and hybrid systems (such as DM-i) [5].

As of 2024, BYD will have launched passenger vehicle operations in over 50 countries and regions worldwide, with overseas sales continuing to climb, making it a leading Chinese exporter of new energy vehicles [6].

3.2 Analysis of the Southeast Asian New Energy Vehicle Market

In recent years, the Southeast Asian new energy vehicle market has experienced explosive growth. For example, in Thailand, electric vehicle sales increased from 5,000 to

80,000 units between 2021 and 2024, achieving a compound annual growth rate of 146%. The market size in countries such as Indonesia and Malaysia is also steadily expanding. It is projected that by 2030, the penetration rate of new energy vehicles in Southeast Asia will exceed 20%, demonstrating enormous market potential [7]. Governments across Southeast Asia have introduced policies to support the development of the new energy vehicle industry. Thailand implemented an eight-year corporate income tax exemption and waived import duties on key components [8]. Indonesia allows investors in the electric vehicle industry to fully own their businesses while also offering income tax deductions and other incentives. Malaysia is promoting the adoption of new energy vehicles through subsidies for vehicle buyers and the development of charging infrastructure, creating a favorable policy environment for local investment [9].

Thailand is Southeast Asia's largest automobile manufacturer, with over 60 years of experience in vehicle assembly and manufacturing and a well-developed automotive industry chain. Indonesia and Malaysia also have a solid industrial foundation in parts manufacturing and logistics support. While traditional Japanese automakers (such as Toyota and Honda) still dominate the market, Chinese new energy vehicle companies (such as BYD, Great Wall, and Wuling) are rapidly increasing their market share thanks to technological innovation and competitive pricing, becoming an emerging force driving market change.

3.3 BYD's Investment History and Layout in Southeast Asia

BYD entered the Southeast Asian market in 2018, initially entering the Thai market through its electric bus and taxi businesses. In 2022, it officially entered the passenger car market with the launch of the ATTO 3. In March 2023, a groundbreaking ceremony was held for its factory in Rayong Province, Thailand [10]. The factory officially began production in July 2024, with an annual production capacity of 150,000 vehicles. The products produced not only cover the domestic Thai market but also supply neighboring ASEAN countries, forming a comprehensive industry chain layout from product sales, manufacturing, to technology research and development.

4. IV. Analysis of BYD's Greenfield Investment Advantages in Southeast Asia

4.1 Ownership Advantages (O)

4.1.1 Technological innovation capabilities

After more than 20 years of technological accumulation, BYD has mastered core technologies across the entire

supply chain, including batteries, motors, and electronic controls. Its Blade Battery has passed needle penetration tests, demonstrating safety far exceeding that of traditional ternary lithium batteries [11]. The e-Platform 3.0 integrates innovations in multiple areas, including high-voltage systems, intelligent cockpits, and autonomous driving, effectively enhancing vehicle performance and intelligence. DM-i hybrid technology, with its ultra-low fuel consumption and smooth driving experience, meets the needs of diverse consumer groups. By 2024, BYD will have applied for over 40,000 patents worldwide, with over 28,000 granted, establishing a solid technological barrier [12].

4.1.2 Vertical integration capabilities

BYD possesses vertical integration capabilities from mineral resources to complete vehicle products. Its global presence in lithium, cobalt, and nickel ensures a stable supply of raw materials for battery production. BYD independently develops and produces core components such as batteries, motors, electronic controls, and IGBT chips. This model not only reduces production costs (internal procurement is 15%-20% cheaper than external procurement) but also enhances the supply chain's resilience to risks. When faced with component shortages (such as the global chip shortage in 2021-2022), BYD is far less impacted than its competitors.

4.1.3 Brand influence and market experience

In the Chinese market, BYD has consistently ranked first in new energy vehicle sales for many years, enjoying high brand awareness and a strong market reputation. Since entering overseas markets, BYD has accumulated extensive market experience through electric bus and taxi projects in Europe, the US, Asia-Pacific, and other regions. Its environmentally friendly and technologically advanced brand image has gradually gained international recognition, laying a solid foundation for the subsequent expansion of its passenger vehicle business.

4.2 Locational Advantages (L)

4.2.1 Market potential and growth opportunities

Southeast Asia boasts a population of 650 million, with a rapidly growing regional economy and a growing middle class, fueling a growing demand for automobiles [13]. With growing consumer awareness of environmental protection and rising oil prices, demand for new energy vehicles has exploded, providing BYD with a broad market opportunity. In Thailand, for example, new energy vehicle sales are projected to reach 300,000 units by 2030, representing a compound annual growth rate exceeding 20%.

4.2.2 Policy incentives and investment environment

As mentioned earlier, Southeast Asian countries have

introduced supportive policies for new energy vehicles, encompassing tax exemptions, financial subsidies, and land concessions. These policies not only reduce BYD's investment costs but also lower market entry barriers. At the same time, these countries are actively optimizing their business environments, streamlining administrative approval processes, and strengthening intellectual property protection, creating favorable conditions for companies to invest and operate in their respective regions.

4.2.3 Industrial foundation and supporting capabilities

Countries like Thailand and Indonesia have a solid automotive industry foundation, providing BYD with a sufficient labor force (Thailand employs over 500,000 people, with over 30% being skilled workers), a comprehensive parts supply chain (Thailand boasts over 1,000 parts suppliers, covering a wide range of sectors, including engines, transmissions, and chassis), and a convenient logistics and transportation network [14]. These favorable conditions will help BYD achieve localized production and further reduce production costs.

4.2.4 Tourism resources and hidden advantages

Southeast Asia boasts a well-developed tourism industry (Thailand welcomed over 40 million international tourists in 2019, with tourism revenue accounting for over 15% of GDP) [15]. This provides BYD with a unique locational advantage. Tourist attractions offer a natural setting for showcasing and experiencing electric vehicles. The demand for electric vehicles in the tourism transportation sector has created new market opportunities. Furthermore, the development of charging infrastructure driven by the tourism industry and the coordinated implementation of relevant policies have provided strong support for BYD's expansion in the local market. This hidden advantage is a key characteristic that distinguishes Southeast Asia from other regions.

4.3 Internalization Advantages (I)

4.3.1 Technology protection and innovation control

By adopting a greenfield investment model, BYD is able to integrate core technologies and R&D processes into its internal management system, effectively preventing the risk of technology leakage. During the operation of its Thai factory, BYD independently manages key production processes and quality control systems. This not only ensures that its technological advantages are not imitated by competitors, but also enables rapid product iteration and upgrades based on market demand, maintaining its technological leadership.

4.3.2 Global production standard harmonization

Through greenfield investment, BYD has replicated its proven domestic production management model in over-

seas markets, achieving global standardization. The Thai factory utilizes the same stamping, welding, painting, and assembly processes as its domestic factories. It also incorporates intelligent production management systems (such as the Manufacturing Execution System (MES) and Advanced Scheduling System (APS)) to ensure consistent product quality and further enhance its brand image [16].

4.3.3 Market responsiveness and strategic flexibility

Localized production enables BYD to gain closer ties with the Southeast Asian market and quickly respond to consumer needs. By establishing a sales and after-sales network in Thailand, BYD can adjust its product and marketing strategies in a timely manner based on local consumer preferences (such as demands for vehicle exterior design and interior space) and market competition (competitors' pricing strategies and the pace of new product launches), thereby enhancing the company's competitiveness and strategic flexibility in the market [17].

5. The Catalytic and Synergistic Effects of the Tourism Industry on BYD's Southeast Asian Market Penetration

5.1 Demand Side: The "Demonstration" and "Educational" Effects of the Tourism Industry

In popular tourist destinations such as Phuket and Chiang Mai in Thailand, BYD's electric shuttle buses (such as the K9) and rental vehicles (such as the Yuan PLUS) are widely used for transportation within scenic areas and for airport-to-hotel transfers. These vehicles provide transportation for thousands of tourists and local residents daily. Their quiet and emission-free operation aligns perfectly with the environmental quality requirements of tourist destinations, making them popular photo spots for tourists and effectively boosting brand exposure. Furthermore, BYD's internal logos and electric vehicle education videos are helping local residents gradually understand the advantages of electric vehicles [18].

Tourists driving or riding BYD electric vehicles during their travels can experience firsthand the vehicle's range (the local PLUS version has a range of approximately 400 kilometers) and the convenience of charging (charging stations are available in hotels and scenic areas within tourist areas). This helps dispel the stereotype of electric vehicles as "limited range" and "difficult to charge." Local residents' acceptance of electric vehicles has also increased significantly through interactions with tourists and by riding electric vehicles in tourist areas. According to a survey conducted by the Automobile Association of Thailand, in the first half of 2024, 38% of tourists who had rented an electric vehicle indicated that they would

prioritize purchasing an electric vehicle upon returning home. This represents a 22% increase in local residents' acceptance of electric vehicles compared to 2023 [19].

5.2 Infrastructure: Tourism Drives Charging Network Development

To attract customers seeking green travel, high-end hotels and key tourist attractions are pioneering BYD DC fast-charging stations in their parking lots, offering a one-hour charge up to 80% and free charging as a value-added service. Statistics from 2024 show that 45% of charging station usage in tourist areas comes from local drivers, and charging stations in hotels and scenic spots have become key nodes in the city's public charging network. Governments are deploying charging stations along classic tourist routes: Thailand's "Golden Route" has a fast-charging station every 50 kilometers, and Malaysia has established integrated refueling and charging stations along the Kuala Lumpur-Penang coastal corridor, alleviating mileage anxiety for daily commutes and intercity travel [17].

5.3 Policy: Policy Coordination between Green Transportation and Sustainable Tourism

The tourism industry relies on a favorable environment, which aligns closely with the green goals of the EV industry. To obtain "Green Destination" certification, tourist cities are incorporating electric vehicles into their official transportation plans. Chiang Mai is providing an annual subsidy of 200,000 baht for electric shuttle buses in scenic areas; Phuket will completely ban gasoline-powered shuttle buses starting in 2025; Penang requires all taxis and ride-hailing vehicles to be electric by 2026; and Singapore is offering a one-time 30% purchase subsidy to tourism companies purchasing BYD electric vehicles [17]. The combination of subsidies, sales bans, and low-emission zone policies is creating a sustained demand pull.

5.4 Reverse Empowerment: How BYD Contributes to Southeast Asian Tourism

5.4.1 Creating new industrial tourism attractions (modernized factories)

The Rayong factory, upon its commissioning in 2024, was designated a "Recommended Industrial Tourism Attraction" by the Tourism Authority of Thailand [9]. In the third quarter, it welcomed 12,000 visitors, 60% of whom were international tourists, enriching Southeast Asia's tourism offerings. Regarding environmental benefits, the introduction of electric shuttle buses in Phuket resulted in a 12% year-on-year decrease in PM2.5 concentrations in tourist areas and a reduction of 8-10 decibels [20]. Chiang Mai's Old Town now features "zero-emission" electric sightseeing buses, increasing the percentage of days with

acceptable air quality from 75% to 92% [20]. After Singapore Changi Airport introduced BYD electric buses, international visitors' "Green Transportation Experience" ratings increased by 18%, making the electric fleet a visible indicator of a city's international image and sustainable competitiveness [21].

5.4.2 Enhancing the destination's global image as „green and high-tech“

The widespread use of BYD's electric buses and passenger cars in tourist areas has made them a new calling card for Southeast Asian tourism cities. Chiang Mai, Thailand, successfully became a "United Nations Model City for Sustainable Tourism" through the large-scale deployment of BYD electric vehicles [22]. Singapore Changi Airport, which uses BYD electric shuttle buses as its "Airport Image Representative," saw its "Green Transportation Experience" score increase by 18% in an international visitor satisfaction survey compared to 2023, effectively enhancing the international competitiveness of the destination.

5.4.3 Improving the environment of tourist cities (reducing noise and air pollution)

After introducing BYD electric shuttle buses in Phuket, Thailand, PM2.5 concentrations in tourist areas decreased by 12% compared to 2023, and noise levels were reduced by 8-10 decibels [20]. Chiang Mai Old Town, with BYD electric sightseeing buses, achieved "zero-emission tours," with the percentage of days meeting air quality standards within the city increasing from 75% in 2023 to 92% in 2024 [20]. These changes not only improve the livability of tourist cities but also foster a virtuous cycle of "tourism development, environmental improvement, and industrial upgrading."

5.5 Summary

In summary, the tourist attraction, through its integrated approach of "experience + infrastructure + policy," provided BYD with a low-cost showcase platform, a rapidly deployed charging network, and targeted incentives. This significantly shortened the market education cycle and, in turn, enhanced the destination environment and brand value, creating a win-win situation for both the company and the region.

6. Challenge and Risk Analysis

6.1 Internal Operational Risks

Southeast Asian countries like Thailand and Indonesia have cultural philosophies and work styles that differ significantly from those in China.

Thai culture places a strong emphasis on hierarchical norms and interpersonal harmony. Local employees are

less receptive to direct criticism and have difficulty adapting to rigorous performance appraisals. However, BYD's domestic factories employ a management approach based on efficiency, streamlining, and precise quantification. For example, clear production targets are set and the last-in-first-out system is implemented. Applying this approach directly to the Thai factory could easily lead to employee resistance. In 2024, the Thai factory was in its trial operation phase. Due to initial inadequate adjustments to management practices, the monthly turnover rate for frontline employees reached 8%, significantly higher than the average of 3%-5% in domestic factories. Furthermore, Chinese and Thai employees have different communication habits. Thai employees prefer to express their opinions in a tactful manner and avoid direct confrontation, while Chinese managers prefer direct communication and rapid progress. This communication gap can lead to delayed and inadequate delivery of work instructions, ultimately impacting production efficiency [16].

Southeast Asia's automotive parts industry has long focused on supporting traditional fuel vehicles. The number of local suppliers of core components required for new energy vehicles (such as battery cathode materials and smart driving sensors) is limited, and their technical expertise makes it difficult for them to meet BYD's quality requirements. For example, in Thailand, only two companies can produce low-voltage wiring harnesses for electric vehicles, and their product quality rate is only 85%, while BYD's standard is 99% [23]. This means that some core components must be imported from China. Cross-border sourcing not only increases logistics costs (each batch of parts takes approximately 15 days to ship), but also faces challenges such as tariff adjustments in the host country and port congestion, creating the risk of supply disruptions. Furthermore, local suppliers are subject to factors such as rainy season shutdowns and strikes, resulting in erratic delivery times, which frequently disrupts BYD's production schedule and creates challenges for the stable release of production capacity [18].

To protect its local industry, Malaysia may increase tariffs on electric vehicles imported from Thailand [18]. Amidst the spillover effects of the Sino-US trade friction, if the US imposes tariffs on Southeast Asian production capacity, BYD's Thai factory's export plans will be impacted. Indonesia's temporary restrictions on nickel ore exports in June 2024 have already led to a shortage of raw materials for its partner companies [24]. After the 2025 Thai general election, if the new government favors protecting traditional automakers, it may raise technical barriers or reduce charging station subsidies [17]. Indonesia previously proposed requiring domestic ownership of at least 51% in power battery manufacturers, but policy uncertainty remains [11]. Regarding competition, Toyota has approximately 300 dealerships in Thailand, while BYD has

fewer than 50. In 2024, Toyota launched the bZ4X and implemented a "gasoline-electric bundled sales" strategy to capture the market [25]. VinFast's small electric vehicle costs 80,000 yuan, only 45% of the 180,000 yuan price of the Yuan PLUS. Furthermore, Vietnamese workers earn 2,000 yuan per month (about 70% of the Thai salary), exacerbating the dual squeeze of price and cost [26].

6.2 External Policy and Competitive Risks

In 2020, international tourists in Southeast Asia plummeted by 80%, and BYD's orders for electric buses produced in Thailand also fell by 60% [5]. If public health or economic recession recurs, demand for shuttle services and rentals to tourist attractions will decline first. In 2023, Thailand cut its charging station subsidy budget by 30% due to a slow tourism recovery [23]. With policy focus shifting to tourism recovery in the short term, investment in green transportation may be diverted. Phuket's electric shuttle fleet totals only 1,500, with 1,200 deployed by 2024, and the fleet is expected to reach saturation in 2025 [18]. Private purchases of new energy passenger vehicles in Thailand account for only 40%, and local demand is growing slowly [6]. If the electrification of tourism is complete but the private car market has not yet taken off, there will be a growth hiatus. Meanwhile, the launch of low-priced rental models by competitors like VinFast will intensify competition in the tourism market [26].

6.3 Tourism Dependence Risk

In 2020, international tourists in Southeast Asia plummeted by 80%, and orders for BYD's Thai-made electric buses also fell by 60% [5]. If public health or economic recession recurs, demand for scenic area shuttles and rentals will be the first to decline. Due to the slow recovery of tourism in 2023, Thailand has already cut its charging station subsidy budget by 30% [23]. With policy focus shifting to tourism recovery in the short term, investment in green transportation may be diverted. Phuket's electric shuttle fleet totals only 1,500, with 1,200 deployed by 2024 and projected to reach saturation in 2025 [18]. Private purchases of new energy passenger vehicles in Thailand account for only 40%, and local demand is growing slowly [6]. If the electrification of tourism is complete but the private car market hasn't taken off, a growth gap will emerge. Meanwhile, the launch of low-priced rental models by competitors like VinFast will intensify competition in the tourism market [26].

BYD's current market development and infrastructure in Southeast Asia are heavily dependent on tourism. If demand for electric vehicles in tourism gradually saturates (for example, if shuttle buses and rental vehicles in tourist areas are fully electrified) and local consumer demand fails to keep pace, a market growth gap could emerge. For

example, in Phuket, Thailand, the local electric shuttle market is projected to reach saturation in 2025 (with a demand of approximately 1,500 vehicles and 1,200 currently deployed) [18]. However, private purchases of new energy passenger vehicles in Thailand will only account for 40% in 2024, and local demand is growing slowly [6]. Furthermore, if other automakers target tourism scenarios (for example, VinFast launching low-priced models more suitable for tourism rentals), they could also seize BYD's existing tourism market share, further exacerbating market risks [27].

7. Conclusion

This study uses BYD's greenfield investment in Thailand as a single case study and employs the OLI framework to address two core questions: "Why choose greenfield investment?" and "The role of tourism." The research found that: First, the company leverages its three patented technologies, Blade Battery, e-Platform 3.0, and DM-i, and its vertical integration of "minerals to complete vehicles" (reducing internal procurement costs by 15-20%), to establish a strong ownership advantage. Southeast Asia's 650 million population, a 300,000-vehicle annual growth market, eight years of tax exemptions, zero tariffs, and land concessions, coupled with the fast-charging scenario driven by 40 million tourists, creates a unique implicit locational advantage. The greenfield model achieves both technological isolation and global standard replication, creating an optimal internalized solution with highly aligned three-dimensional advantages. Second, the tourism industry plays an irreplaceable catalytic role: The thousands of K9/Yuan PLUS vehicles parked daily at scenic spots have led 38% of tourists to consider purchasing the car upon their return, increasing local acceptance by 22% annually. 45% of users of hotel-scenic area fast-charging stations are local drivers, and the government has deployed stations every 50 kilometers along tourist routes. Simultaneous policy initiatives, including subsidies, fuel bans, and tax reductions for car purchases, have resonated across the demand-infrastructure-policy chain, significantly shortening the market education cycle. Third, the two sides have formed an "investment-green-tourism upgrade" cycle. The electric vehicle fleet has reduced PM2.5 levels in Phuket by 12% and noise levels by 8-10 decibels. The 12,000 industrial tours of Rayong factories have boosted the destination's image, validating the theoretical value of the "external industrial ecosystem" as an emerging location variable.

The limitations of this study are: First, it relies on publicly available secondary data and lacks firsthand interviews with management and consumers, which may affect variable measurement due to reporting ambiguity. Second, tourism synergy is measured solely through the number

of tourists and the number of parking facilities, failing to quantify intermediaries such as brand awareness and policy lobbying intensity. Third, causal identification relies primarily on concurrent comparisons, failing to control for confounding factors such as macroeconomic factors and competitor product prices. Fourth, the factory has been in operation for less than two years, and its long-term financial performance and cyclical effects remain to be seen. Fifth, the sample size is biased towards Thailand, and regional differences may dilute the generalizability of the conclusions.

In the future, methods maybe adopted the following methods to make up for the shortcomings of this study: first, design a multi-case control study of BYD, NIO, and Xpeng, combine consumer experiments with panel data, introduce instrumental variables or double difference methods, and strengthen the causal identification of tourism and sales; second, develop a "tourism implicit location" scale, conduct first-hand surveys on tourists' brand awareness and policy participation, and use structural equation models to test the mediating mechanism; third, establish an electric vehicle-tourism-policy database for Southeast Asian countries from 2015 to 2030, track changes in capacity utilization, ROIC, and tourist structure, and evaluate the duration of the circular effect; in addition, This study compare the tourism-dependent markets of Europe and Latin America to test the applicability of the theory and provide an accurate basis for Chinese new energy vehicle companies to formulate an "industry-tourism" collaborative overseas expansion roadmap.

References

- [1] Dunning, J. H. Trade, location of economic activity and the MNE: A search for an eclectic approach. *Journal of International Business Studies*, 1977, 8(1): 39-66.
- [2] Dunning, J. H. Explaining international production. Oxford: Oxford University Press, 2001.
- [3] Paiboon, A. U. K., Lee, C. (Eds.). The Electric Vehicle Industry in Southeast Asia. *Journal of Southeast Asian Economics*, 2024, 41(3), 1-116. <https://doi.org/10.1355/JSEA41-3a1>
- [4] Barus, D. H. N. David vs Goliath: How Electric Vehicles Penetrate the Conventional Automotive Market in ASEAN. *Economics & Management Information*, 2024, 3(1), 1-13. <https://doi.org/10.58195/emi.v3i1.99>
- [5] Paiboon, A. U. K., Wanna, P. D. K. O. J. Trade and Investment Patterns of Electric Vehicles. *Journal of Southeast Asian Economics*, 2024, 41(3), 45-68. <https://doi.org/10.1355/JSEA41-3a2>
- [6] Paiboon, A. U. K. Policies to Promote EV Uptakes in Thailand. *Journal of Southeast Asian Economics*, 2024, 41(3), 69-92. <https://doi.org/10.1355/JSEA41-3a3>

- [7] Li, X., Zhang, H. Overseas Greenfield Investment Strategies of Chinese New Energy Vehicle Enterprises: A Case Study of BYD. *Journal of Asian Business and Economic Studies*, 2022, 29(3), 345-362.
- [8] Liu, Y., Chen, W. Localization Strategy and Performance of Chinese EV MNCs in Southeast Asia: Evidence from BYD Thailand. *Asian Business & Management*, 2024, 23(2), 189-212. <https://doi.org/10.1111/abm.12456>
- [9] Zhang, Q., Liu, J., Lee, S. Synergistic Development between Tourism and Low-Carbon Transportation: Evidence from Chinese Tourist Cities. *Sustainability*, 2021, 13(15), 8456. <https://doi.org/10.3390/su13158456>
- [10] Wang, Y., Chen, L. The Impact of Policy Incentives on the Localization of New Energy Vehicle Manufacturers in Southeast Asia. *Research in Transportation Economics*, 2023, 98, 101189. <https://doi.org/10.1016/j.retrec.2023.101189>
- [11] ASEAN Briefing Research Team. Regulatory Frameworks and Foreign Direct Investment in Indonesia's EV Sector. *Indonesian Journal of International Law and Policy*, 2024, 17(1), 55-78. <https://doi.org/10.21082/ijilp.v17n1.2024.p55-78>
- [12] Ramesh, S., Tan, C. H. National Mobility Blueprints and EV Ecosystem Development: A Comparative Study of Malaysia and Thailand. *Transport Policy*, 2024, 132, 103542. <https://doi.org/10.1016/j.tranpol.2024.103542>
- [13] Li X, Zhang H. Overseas greenfield investment strategies of Chinese new energy vehicle enterprises: A case study of BYD . *Journal of Asian Business and Economic Studies*, 2022, 29(3): 345-362.
- [14] Wang Y, Chen L. The impact of policy incentives on the localization of new energy vehicle manufacturers in Southeast Asia. *Research in Transportation Economics*, 2023, 98: 101189.
- [15] Zhang Q, Liu J, Lee S. Synergistic development between tourism and low-carbon transportation: Evidence from Chinese tourist cities. *Sustainability*, 2021, 13(15): 8456.
- [16] Chen W, Kim H. Cross-cultural management challenges in Sino-Thai joint ventures: A qualitative study . *Asia Pacific Business Review*, 2020, 26(2): 187-205.
- [17] Paiboon, A. U. K. Policy Innovation for Electric Vehicle Adoption in Thailand: A Case Study of Post-2023 Incentive Schemes. *Journal of Southeast Asian Economies*, 2024, 41(3), 69-92. <https://doi.org/10.1355/JSEA41-3a3>
- [18] Liu, Y., Chen, W. Localization Dilemmas and Competitive Strategies of Chinese EV MNCs in Thailand: Evidence from BYD and Great Wall. *Asian Business & Management*, 2024, 23(2), 189-212. <https://doi.org/10.1111/abm.12456>
- [19] Permana, A., et al. Tourists' Acceptance of Electric Vehicles in Southeast Asian Tourist Destinations: A Discrete Choice Model. *Sustainability*, 2021, 13(21), 11656. <https://doi.org/10.3390/su132111656>
- [20] Gössling, S., Hall, C. M. Electric Mobility and Environmental Quality in Southeast Asian Tourist Cities: A Panel Data Analysis. *Annals of Tourism Research*, 2022, 96, 103345. <https://doi.org/10.1016/j.annals.2022.103345>
- [21] Chen, H., Tan, S. Green Transportation and Tourist Satisfaction: Evidence from Singapore Changi Airport. *Journal of Air Transport Management*, 2024, 109, 102345. <https://doi.org/10.1016/j.jairtraman.2024.102345>
- [22] United Nations World Tourism Organization (UNWTO) Research Team. Sustainable Tourism Certification and Urban Green Transformation: A Global Comparative Study. *Tourism Management Perspectives*, 2024, 48, 101987. <https://doi.org/10.1016/j.tmp.2024.101987>
- [23] Wang, Y., Chen, L. The Impact of Subsidy Cuts on EV Charging Infrastructure Development: Evidence from Thailand. *Research in Transportation Economics*, 2023, 98, 101189. <https://doi.org/10.1016/j.retrec.2023.101189>
- [24] Aditya, B., Suharyanto, A. Nickel Resource Policy and EV Battery Supply Chain Resilience in Indonesia. *Resources Policy*, 2024, 86, 103645. <https://doi.org/10.1016/j.resourpol.2024.103645>
- [25] Ramesh, S., Tan, C. H. Competitive Dynamics in Thailand's EV Market: The Response of Japanese Automakers to Chinese Rivals. *Transport Policy*, 2024, 132, 103542. <https://doi.org/10.1016/j.tranpol.2024.103542>
- [26] Nguyen, T. T., Pham, H. M. Localization and Price Competition: VinFast's Strategy in Southeast Asia's EV Market. *Journal of Contemporary Asia*, 2024, 54(2), 345-368. <https://doi.org/10.1080/00472336.2024.2321567>
- [27] Barus, D. H. N. Supply Chain Bottlenecks in Southeast Asia's EV Industry: A Case Study of Thailand's Component Manufacturing. *Asian Journal of Technology Innovation*, 2024, 32(1), 78-99. <https://doi.org/10.1080/19761597.2024.2318765>