ION Mobility Market,Competitor Analysis and Strategic Expansion into Thailand

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Executive Summary

This report provides a comprehensive analysis of the electric vehicle (EV) market in Southeast Asia (SEA), focusing on Ion Mobility's strategic entry into Thailand. The findings highlight varying levels of EV charging infrastructure, grid reliability challenges, limited battery storage development, and diverse government policies across SEA countries. The report profiles key E2W companies, including Ola Electric, NIU Technology, and Gogoro, and assesses their business models and market positions. Ion Mobility's entry strategy for Thailand involves positioning itself as a premium E2W brand, leveraging experiential centers, dealer partnerships, and innovative marketing initiatives. Addressing affordability for gig workers and emphasizing charging convenience are core components of Ion Mobility's approach, reflecting its vision to revolutionize mobility sustainably in the Thai market.

EV INFRASTRUCTURE

Ev Infrastructure	Metrics	China	USA	Malaysia	Vietnam	Thailand	Philipines
EV Charging Stations	Charging Stations Per Kilometer of Road Map	0.347	0.019	0.00419	0.07	0	0.00319
Grid Reliability	System Average Intereption frequency Index (SAIFI)	0.2	1.426	No data	2.61	3.72	2.2
Battery Storage Solution	Total Invesments (Geographical Market Size) (Billion)	93.9	60.3	4.16 (Combined Asean)			

EV Charging Stations:

Well-established EV charging stations can help to build buyer confidence and accelerate EV uptake. By comparing the EV charging infrastructure in SEA countries with that of mature EV markets like the US and China, ION can better plan its expansion into the Asian market. With the exception of Vietnam, SEA countries have significantly fewer EV charging stations than China and the US. While Vietnam's EV charging infrastructure may seem impressive compared to the US, it is important to note that the US is facing a shortage of EV charging stations. Therefore, China's EV charging station per-kilometer ratio should be used as the gold standard for SEA countries.

Drawing on the insights presented in Temasek's "SouthEast Asia’s Green Economy Report 2022," we aim to conduct a more thorough investigation of the two countries that were recommended for EV companies to invest in: Vietnam and Thailand. In SEA, while Vietnam leads in charging stations per km, our team foresees rapid EV adoption in Thailand due to favourable government policies, which will be further discussed later on. This discrepancy between favourable policy and charging availability is likely to self-correct, where there will be a rapid increase in charging stations in the future. Moreover, Thailand's Electricity Generating Authority (EGAT) partnering with large auto firms signifies acceleration, bolstered by Thailand's stature as the 10th largest automotive producer. Leveraging this, Thailand is poised to establish itself as an EV manufacturing hub, driving adoption and charging station growth.

In contrast, Vietnam currently boasts a higher density of charging stations per kilometer, predominantly driven by the efforts of a singe EV player, Vinfast. This unique situation arises from the limited backing for comprehensive EV infrastructure and adoption initiatives. Our team envisions a more expansive growth trajectory for the overall EV ecosystem in Thailand.

Despite Vietnam's current lead in charging stations, the strategic approach Thailand is taking toward building a sustainable EV landscape positions it favourably for a more substantial and enduring evolution.

Grid Reliability:

Grid reliability is crucial for the widespread adoption of electric vehicles (EVs) in ASEAN countries. A reliable grid ensures that EV owners can confidently charge their vehicles when needed, promoting widespread adoption and transition to sustainable transportation. Our team used SAIFI (System Average Interruption Frequency Index) as the metric to compare grid reliability across the countries[1].In 2022, the average SAIFI for ASEAN countries was 1.2, which is lower than the global average of 1.5. Confidence in EVs will take time to build in ASEAN countries, where grid reliability is not as high as in mature EV markets. Governments and businesses will need to invest in grid upgrades to increase confidence in EVs. There is good news, though. ASEAN countries have pledged significant investments to develop and maintain their grids. Thailand has pledged the most investment at 6.92 billion USD. These investments will help to improve grid reliability and make EVs a more attractive option for consumers in ASEAN countries. The increasing number of EVs will put a strain on the grid, so it is important to invest in grid upgrades now. This will help to ensure that EVs can be charged reliably and that the grid can withstand the increased demand.

Battery Storage Solutions:

Battery storage is essential for a reliable EV ecosystem. It can help to reduce charging and demand costs, improve grid reliability, and provide backup power for EVs. Firstly, Battery storage can be charged during off-peak hours when there is less demand for energy. This can help to reduce the cost of charging EVs, as well as the overall demand on the grid. Secondly battery storage can help to smooth out fluctuations in energy demand, which can help to prevent grid overloads and blackouts. Thirdly, Battery storage can provide backup power for EVs in the event of a power outage. This can help to ensure that EV owners can still travel when the grid is down. Lastly, battery storage can be paired with renewable energy sources, such as solar and wind power. This can help to store excess energy from these sources and make it available when needed.

Battery storage is a critical component of a reliable EV ecosystem, but ASEAN significantly lacks development in this area. The total battery storage market size in ASEAN is only 4 billion USD, significantly behind EV mature markets. This highlights the difference in stages that the two different types of markets are at in terms of EV adoption. While there are clear signs of ASEAN promoting this ecosystem, it will take a while before we see the mass adoption of EVs in ASEAN that we see in mature EV markets.

Government Policies

The market readiness for Electric Two Wheel (E2W) vehicles varies across the SEA countries, with each nation implementing their own incentives and goals for the adoption of EVs to limit carbon emissions and to attract more investment and employment opportunities. Mature markets such as the US and Europe enjoy numerous policies and incentives that drive both the demand and supply of EVs, in addition to much more aggressive ESG goals that aid the growth of their market.

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[1] SAIFI measures the average number of electrical interruptions per customer per year.

In Vietnam, the primary mode of transportation is motorcycles, outnumbering passenger vehicles by a staggering 30 to 1 ratio. Notably, Vietnam ranks second worldwide, following China, in the electrification of two-wheelers. Local companies, particularly Pega and Vinfast, have established dominance in the electric two-wheeler (E2W) market. The government has actively promoted the growth of the E2W market, setting a goal for electric vehicle (EV) sales to constitute 10% of all new vehicle sales in Vietnam by 2030. To incentivize domestic consumption, the government has implemented favourable policies, such as waiving registration fees and reducing tax rates for EVs. However, the government has been relatively slow in introducing policies to attract multinational corporations to establish production in Vietnam, possibly because they aim to protect their local companies like Vinfast, which harbour global aspirations. These policies appear to prioritise boosting domestic demand for EVs over encouraging their production by multinational companies.

Since their recovery from the COVID-19 pandemic, Thailand's tourism has been booming, further exacerbating their well-known traffic congestion. This issue has driven demand for E2W products as they fit in perfectly for leisure riding and commuting, while avoiding traffic and saving money on fuel. The increase in domestic demand for E2W is also attributed to incentive packages that reduce import duties by up to 40% and an excise tax cut from 8% to 2% for imported EVs, which is predicted to add 7000 new EVs in its first year. This is in line with their target to have 30% of local production to be EVs. In addition, to boost supply, the government introduced corporate tax exemptions and import tariffs exemptions for production machinery. Although it is important to keep in mind that some of the incentives are targeted at specific categories of EVs that do not include E2W, limiting the supply of E2Ws to a certain extent.

Malaysia is actively promoting EV adoption through various measures, including road tax and personal tax exemptions for EV owners. The government aims to have 50% of government and GLC fleet additions come from local EV manufacturers. They are also providing incentives like a 100% income tax exemption for EV charging equipment manufacturers over the next decade and a complete investment tax allowance for five years. However, Malaysia's progress in EV adoption is hindered by its fuel subsidy policies, which have led to significantly lower fuel prices compared to neighboring countries. These subsidies make traditional ICEVs more attractive and undermine the country's EV push.

When evaluating potential entry into Southeast Asian markets, it's essential for EV startups to consider government policies and support for the EV ecosystem. In this context, Thailand emerges as the most promising destination for several compelling reasons. Thailand not only boasts favourable government policies that promote developments in key EV infrastructure components, such as charging stations, grid expansion, and battery storage but also adopts a balanced approach by incentivizing manufacturing, attracting MNCs, and facilitating consumer adoption. This comprehensive strategy sets Thailand apart from its regional counterparts. In contrast, Vietnam primarily caters to domestic demand, limiting the scope for external investments, while Malaysia faces regulatory inconsistencies that may impede sector growth. Thus, Thailand's holistic and supportive policy framework positions it as the optimal choice for EV startups looking to establish a foothold in the dynamic ASEAN market.

Analysis of existing E2W companies

For the purpose of our market analysis report, we have selected three prominent electric two-wheeler companies as representative case studies: Ola Electric, representing the Indian market; NIU Technology in China; and Gogoro, standing for the Taiwanese market. These companies have been chosen to provide comprehensive insights into the unique dynamics, strategies, and challenges within their respective regions, allowing us to draw valuable comparisons and strategic recommendations for ION mobility to venture into Thailand.

Ola Electric:

Revenue and Business Model: Ola Electric, a prominent player in India's electric two-wheeler market, generates revenue through scooter sales, battery swaps, and after-sales servicing. They offer a swappable battery service and boast a high-capacity manufacturing facility in Tamil Nadu, producing 10 million electric scooters annually.
Market Positioning: Ola Electric positions itself as an affordable electric scooter brand, controlling 40% of India's E2W market and experiencing rapid 375% YoY growth.
Distribution Channel: Ola Electric adopts a multi-channel approach, selling directly to consumers through experience centers, their website, and via partnerships with Amazon. They are also expanding their reach through third-party dealerships to cater to a wide range of customers.

NIU Technology:

Revenue and Business Model: NIU Technology generates revenue primarily through electric scooter sales, subscription plans, and after-sales services like roadside assistance.
Market Positioning: NIU positions itself as a premium brand with innovative features like swappable batteries and a mobile app.
Distribution Model: NIU's distribution model includes direct sales through their website, collaborations with authorized dealers, and listings on Amazon. They are expanding their customer base through these channels, along with third-party dealerships.

Gogoro Taiwan:

Revenue and Business Model: Gogoro Taiwan operates with a multifaceted revenue model, including electric scooter sales and a pioneering battery swapping network.
Market Positioning: Gogoro dominates Taiwan's E2W market, emphasizing exceptional value, affordability, and strategic partnerships to make their scooters accessible.
Distribution Channels: Gogoro's distribution strategy involves direct-to-consumer sales, an extensive dealer network, and strategic partnerships. They cater to the gig economy workforce and have successfully reduced the total cost of ownership for electric scooters.

Strategic Entry into Thailand

Entering Thailand's electric two-wheeler (E2W) market, Ion Mobility aims to leverage the country's position as an automotive manufacturing hub to introduce innovative mobility solutions. The core strategy revolves around delivering electric scooters that are not only environmentally friendly but also offer a significantly lower total cost of ownership compared to competitors and traditional ICE (Internal Combustion Engine) two-wheelers.

Ion Mobility plans to establish itself as a premium E2W brand catering to consumers who value sustainability and seek powerful electric motorbikes. These high-performance E2Ws are priced above the popular Honda Wave i10, which costs just $1.1k USD. Ion Mobility's

scooters boast impressive features such as rapid acceleration from 0-50 kmph in 3.7 seconds and an impressive range of 200 km. This positioning targets consumers who prioritize performance and are willing to invest in a premium electric two-wheeler.
Ion Mobility adopts a comprehensive distribution strategy, drawing inspiration from successful models like Tesla's referral program. This approach encompasses various elements, including creating an online-to-offline experience akin to Tesla through motorbike events, test-drives, and upscale lounge centers. Collaborations with strategically positioned dealers are leveraged to minimize initial costs while ensuring local accessibility. Ion Mobility also implements affiliate marketing initiatives to drive word-of-mouth sales through referral discounts and collaborates with micro-influencers, including prominent Thai figures and YouTube personalities, to extend its brand reach and connect with a broader audience.

Recognizing the importance of affordability, Ion Mobility should explore options for introducing a more budget-friendly variant and partnering with ride-sharing platforms like Uber and Grab to develop accessible leasing plans. Additionally, subscription plans will be launched to reduce the cost barrier for workers looking to own a powerful and sustainable E2W.

To address the challenge of limited public EV charging infrastructure in Thailand, Ion Mobility is considering introducing a battery swapping service similar to Gogoro. Alternatively, the company may explore importing portable EV chargers such as GoEV or provide installation subsidies for home charging, particularly for those residing in landed houses. This strategic move ensures reliable charging solutions, overcoming the scarcity of public charging stations.

Ion Mobility plans to employ creative marketing initiatives such as a "trade" program, allowing riders to swap their existing ICE vehicles for Ion Mobility bikes for a few days, providing firsthand experience and driving informed choices. Another innovative approach is exploring the integration of Ion Mobility technology into Thailand's famous Tuk Tuks, increasing brand visibility and generating interest.
In summary, Ion Mobility's comprehensive business model for Thailand encompasses a multifaceted approach, from premium positioning and partnerships with dealers to affordability measures, innovative charging solutions, and unique marketing initiatives. The company is poised to tap into Thailand's rapidly growing E2W market, offering an appealing alternative for discerning consumers and gig economy riders while contributing to the country's sustainable mobility landscape.