

Business Strategies for PT Katalis Infra Indonesia to Expand Its Loan Portfolio in the Electric Vehicle Infrastructure Sector

Erick Mulijadi^{1*}, Utomo Sarjono Putro²

School of Business and Management, Institut Teknologi Bandung^{1,2}

*Email: erick_mulijadi@sbm-itb.ac.id

Abstract

Indonesia has decided to achieve net-zero emissions by 2060, where electric vehicle (EV) adoption plays a critical role. PT Katalis Infra Indonesia (KII) – a pseudonym for a state-owned enterprise company that finances infrastructure projects in Indonesia – was given a mandate by the government to expand its operations to finance the EV infrastructure sector, comprising EV battery manufacturing plants and EV charging stations. Despite the recent mandate expansion, the company is struggling to finance a project related to this new sector. This study focuses on formulating business strategies for KII to expand its loan portfolio in the EV infrastructure sector. The study uses a qualitative method approach, starting from a literature review, benchmarking, document analysis, and semi-structured interviews with several key participants from internal and external stakeholders. The gathered data is analyzed with internal and external analysis, using several tools such as Resource-Based View (RBV) for internal analysis, Porter's Five Forces for external analysis, SWOT and TOWS matrix for strategy formulation, and gap analysis to evaluate the alignment of company capabilities with industry key success factors. The findings reveal several critical gaps with industry best practices and expectations, starting from the company's condition, which lacks technical expertise and specific credit evaluation tools in the EV infrastructure sector, limited green finance products in the new sector, and mandate expansion that does not cover key segments of the EV ecosystem. The strategy is formulated using the TOWS matrix, where each of the proposed strategies is linked with the identified gap of the company's capability and key success factors in the industry. The study concludes with an implementation roadmap and recommendations for KII regarding the key actionable solutions in implementing the strategies.

Keywords: Electric vehicle infrastructure, infrastructure finance, business strategy, TOWS matrix, gap analysis, key success factor

A. INTRODUCTION

In 2015, around 196 countries came together in Paris and formed the Paris Agreement, a legally binding international treaty on global climate change. In response to the Paris Agreement, the Indonesian government declared its commitment to achieving net zero emissions (NZE) by 2060 or sooner. Align with this agenda, the Financial Services Authority (OJK) issued POJK No. 16/2024 in October 2024 for PT Katalis Infra Indonesia (KII) – a pseudonym for state owned enterprise company which moves in financing infrastructure project in Indonesia – to expand the company's mandated financing scope to include electric vehicle infrastructure comprising of EV charging stations and EV battery manufacturing plant. Despite this, the company has not yet provided any financing for EV infrastructure projects by the end of May 2025.

The lack of sector-specific technical expertise, specialized credit evaluation tools, and proactive project pipeline strategies are some of the internal limitations that currently limit KII's operational readiness. Note that the POJK 16/2024 also requires KII to have expertise in the sector that will be financed and conduct a thorough analysis during the financing assessment. Furthermore, another limitation comes from the condition that KII's mandate is still only partially defined, which limits the comprehensive assistance required for the larger EV ecosystem.

Based on the gap mentioned above, this study aims to explore the current capability of KII, identifying key factors for expanding the company's portfolio in the new sector, and exploring how KII can develop business strategies effectively, including its implementation plan. The study uses a qualitative method approach, starting from a literature review, benchmarking, document analysis, and semi-structured interviews with several key participants from internal and external stakeholders. The gathered

* Corresponding author

data is then being analyzed with internal and external analysis. Below is the conceptual framework of this study.

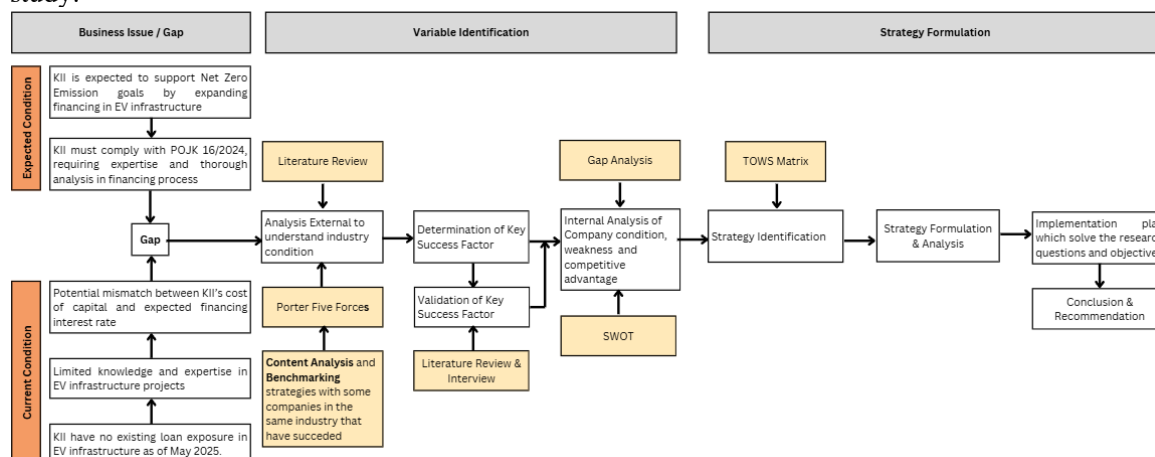


Figure 1. Conceptual Framework

Source: Research data, 2025

Previous studies have discussed the role of public finance institutions in accelerating energy transition, but few have analyzed how a mandate expansion can be translated into operational action, especially within a developing country context. Hence, this paper also aims to contribute academically by offering a practical case of how state-owned financial institutions in emerging markets respond to policy-driven mandate expansions.

B. METHODS

This study uses a qualitative approach to address the well-defined issues effectively. A qualitative approach is suitable to explore a specific issue as it enables thorough analysis of KII's internal capabilities and external industry conditions that affect the strategy development for KII in expanding its loan portfolio in the EV infrastructure sector. The analysis is conducted using several tools, including the Resource-Based View (RBV) for internal analysis, Porter's Five Forces for external analysis, SWOT and TOWS matrix for strategy formulation, and gap analysis for identifying areas where the company needs improvement to close the gap with the industry's key success factors. Note that the usage of these tools increases the analytical rigor and contextual relevance of the findings. The data collection method for this study is structured to comprehensively capture the necessary qualitative and quantitative information required to answer the defined research questions. The process diagram of data collection is shown below.

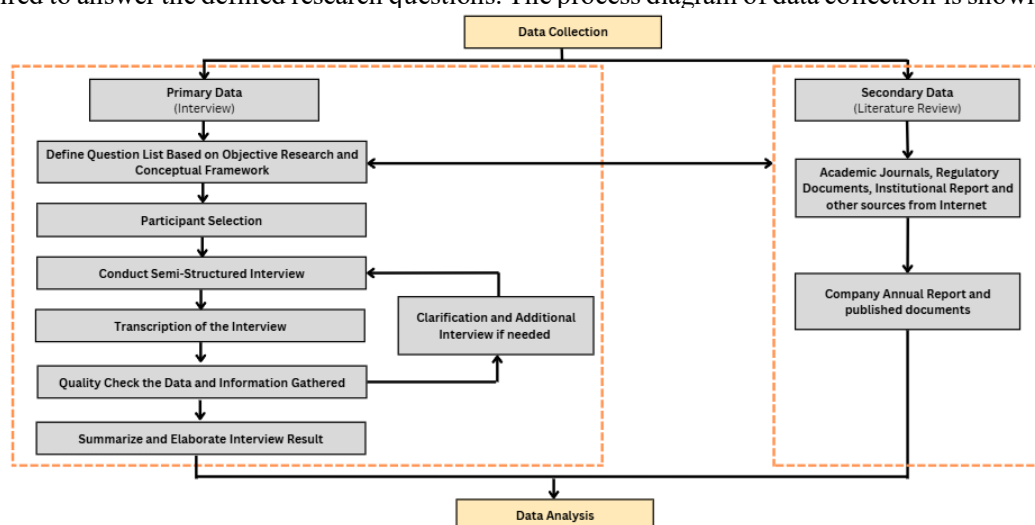


Figure 2. Data Collection Methodology

Source: Research data, 2025

Data from primary sources is collected through semi-structured interviews, which is a qualitative research method that provides flexibility and in-depth exploration of experts' insights. The process begins with formulating a list of questions to address the research objectives. Then, participants for the interviews are selected based on individuals who hold key roles and possess substantial experience related to EV infrastructure financing. Below is the list of participants and the goals of interviewing each person. However, to ensure research ethics and confidentiality, all participants were informed that the interview was for academic purposes. In addition, the names of the institution and participants were used as pseudonyms as appropriate.

Table 1. Interview Participants and Objectives

Participants	Interview Objectives
KII – Head of Business Development	1. Understand strategic priorities and internal readiness for entering EV infrastructure financing. 2. Explore institutional gaps, partnership potential, and roadmap expectations.
KII – Team Leader of Business Development	1. Gather operational insights on project origination and evaluation. 2. Identify tactical-level gaps and feasible short-term actions ("quick wins").
Orange Bank – Team Leader of Analysts	1. Benchmark successful strategies, financing models, and internal processes. 2. Learn about market competition, risks, and portfolio structuring in EV financing.
Tiger Bank – Relationship Manager	1. Benchmark successful strategies, financing models, and internal processes. 2. Learn about portfolio structuring in EV financing.
CNGR (EV Infra Developer) – Corporate Finance Manager	1. Understand the demand-side perspective on financing barriers and success factors. 2. Identify what developers seek in a financial partner and what makes financing effective.

Source: Research data, 2025

The interview questions are prepared around a few topics: 1) institutional readiness; 2) market experience and pipeline; 3) external benchmarking; 4) developer's perspective; 5) strategy formulation; and 6) implementation roadmap. Following the interview with participants, transcription is being made to ensure the accuracy of the data. Secondary data sources are collected through an extensive literature review, including regulatory documents (POJK No. 16/2024), academic journals, industry reports, institutional publications (e.g., from Asian Development Bank, International Finance Corporation, etc.), and news relevant to EV infrastructure and financing. These external materials are reviewed as benchmarks to obtain global best practices, key success factors of other financial institutions in financing EV infrastructure projects, and their applicability to KII's strategy.

Data analysis for this study comprises of few sequences. The first stage is situational analysis to provide comprehensive insights from both internal and external conditions that affect KII's strategy development. Internal analysis is conducted using RBV tools to evaluate KII's resources and capabilities, to identify its critical strengths and weaknesses. The assessment was conducted through a literature review of the company's documents (company profile and annual report) and a semi-structured interview with the business development head and team leader. For external analysis, the assessment was conducted through content analysis and semi-structured interviews using Porter's Five Forces framework. Key success factors are obtained by using content analysis of data from industry reports, benchmarking studies, and publications of successful practices by other financial institutions that have financed EV infrastructure projects. Meanwhile, Porter's Five Forces also provides an assessment that comprises opportunities and threats in the industry.

It is to be noted that manual qualitative coding is used to examine the interview transcripts. This involved several steps: open coding to identify each stakeholder explanation based on distinct concepts or keywords, axial coding to group the codes into larger thematic groups, and then creating a summary for each thematic group, according to the guidelines from (Sheppard, 2021). To ensure the Reliability of qualitative data, triangulation was applied through cross-verification of interview insights with regulatory documents and external reports. The participants were purposefully selected based on relevance to the topic and diversity of viewpoints. Hence, despite the use of a qualitative approach, this triangulation method ensures the depth of the study findings. Note that the findings are specific to KII and cannot be generalized without further analysis. The next stage is strategy formulation. Following the comprehensive situational analysis, the findings are synthesized into a SWOT analysis to integrate internal strengths and weaknesses with external opportunities and threats, thus offering a holistic overview of KII's strategic

position. Subsequently, gap analysis is conducted by comparing the identified key success factors with the KII's current condition and the existing company's loan products. This analysis provides insight into the strategic gaps and areas that need strategic improvement. Then, the strategy formulation is synthesized by consolidating the SWOT and gap analysis to generate actionable strategies for KII. For the final stage, the formulated strategies from the TOWS matrix are transformed into an implementation plan, outlining key action steps, timelines, and responsibilities of each function in charge. This implementation plan serves as a practical roadmap for KII to facilitate the execution of previously identified strategies, enabling the company to expand its financing in EV infrastructure projects successfully.

C. RESULTS AND DISCUSSION

This section presents the findings and analysis of the research that respond directly to the research objectives. It is derived from primary and secondary data, which explain the current business challenges and potential strategic responses for PT Katalis Infra Indonesia (KII) in expanding its loan portfolio to the EV infrastructure sector.

Key Success Factor from Content Analysis and Benchmarking

Content analysis from published industry reports and benchmarking is conducted against financial institutions that have successfully financed EV infrastructure. This provides a foundation for identifying industry best practices and relevant key success factors. The objective is to identify key success factors that comprise strategic elements, financing structure, and institutional readiness approaches that could be replicated and applied in KII to expand its loan portfolio in the EV infrastructure sector. The analysis begins by reviewing relevant academic journals and industry reports to gain a clear understanding of the funding landscape dynamics and EV project loan structuring in global best practices. Below is the result of content analysis.

Table 2. Content Analysis Findings

Source	Focus Area	Key Success Factor	Applicability to KII
Lamm T., Johnson M., Weisman C., Alatraste I. (2024). Funding, Financing, & Investment Strategies to Advance Clean Mobility Infrastructure in Priority Communities	Funding and financing for equitable mobility infrastructure	Utilization support mechanisms, community-led planning, and city-level public-private partnerships to address equity and demand challenges.	Yes – KII could adopt the method of city-led strategies and the community engagement method in PPP.
World Business Council for Sustainable Development. (2023). Charging Infrastructure Financing	Global financing frameworks and risk mitigation for EV charging	Use of blended finance, guarantee schemes, and public-private partnerships models to lower perceived risk and attract institutional investors.	Mixed – KII has a blended finance program (but still not yet dedicated to EV infrastructure) and is also able to provide guarantee schemes and participate in PPP.
Institute for Essential Services Reform. (2023). Indonesia Electric Vehicle Outlook 2023	Market and investor landscape for EV adoption in Indonesia	This report highlights the role of local capital mobilization, early-stage investment challenges, and private equity engagement in EV infrastructure and battery chains.	Yes – KII could provide advisory services for early-stage project development and participate in equity investment.
Yang T., Long R., Li W., Rehman S. (2016). Innovative Application of the Public-Private Partnership Model to the Electric Vehicle Charging Infrastructure in China	PPP models in China for EV charging infrastructure	Demonstrates how risk sharing, viability gap funding for PPP, and concessional access to land enhanced the financial viability of EV charging projects.	Mixed – KII could participate in PPP, but the viability gap funding needs to be requested by the project company, and the government makes the decision.

Source: Research data, 2025

Summarizing from the above table, the key success factors obtained from journal/industry reports emphasize the role of public-private partnership (PPP), viability gap funding, blended finance, guarantee schemes, and the importance of technical project development support. In terms of applicability to KII,

some of these strategies are applicable. KII already has the capability for blended finance and guarantee schemes, but not yet specifically tailored for EV infrastructure projects. In addition, KII could strengthen engagement with EV infrastructure developers and project origination capacity to identify viable projects in the early stages, and provide technical assistance to secure funding when the project is ready to be developed. Another analysis to identify key success factors is conducted through a benchmarking strategy with other financial institutions that have successfully financed EV infrastructure projects, particularly those with operations in Southeast Asia or similar emerging markets. Below is a summary of the findings.

Table 3. Benchmarking Findings

Financial Institution	Strategy	Key Success Factor	Applicability to KII
Asian Development Bank – EV ecosystem project in the Philippines & Vietnam (Ayala Group)	Blended finance, concessional loans, and technical assistance	Use of blended finance provides technical assistance for feasibility study and finances the entire EV ecosystem programs (vehicles + chargers + digital infra)	Yes – KII can replicate blended finance and advisory services under its ETM mandate
International Finance Corporation – Fleet electrification investment in Mexico	Direct equity and debt in fleet operators and charging infra	Targeted investment with ESG-aligned conditions and collaborate with private co-investment under one financing scheme	Yes – KII can explore targeted green loans or co-financing frameworks
Asian Infrastructure Investment Bank – Electric bus project in India	Sovereign-backed subnational loan for electric bus systems and depots	Leverages government guarantees to expand access to clean transport infrastructure	Mixed – Indonesia's government does not provide direct guarantees for infrastructure projects, instead using its vehicle company (PT Penjaminan Infrastruktur Indonesia)
Green Climate Fund – India electric mobility program	Grant blended with concessional finance to fleet & infra players	Subsidized interest rates and repayment holidays incentivized private EV ecosystem players	Mixed – KII has a grant from an international institution, but is still not yet dedicated to EV infrastructure
Syndication of Maybank and BNI – EV battery plant financing for VinFast in Indonesia	Syndicated loan with BNI as lead arranger and Maybank as participant. The facility includes a USD 80M accordion.	Demonstrates origination capability (BNI), risk-sharing participation (Maybank), alignment with ESG goals, and credibility in cross-border green financing	Yes – KII can also underwrite syndicated loans and strategic participation in flagship EV projects.

Source: Research data, 2025

Summarizing the benchmarking findings, the key success factors are the use of blended finance, grant and technical assistance for early-stage projects, financial support for the whole EV ecosystem project, leveraging government guarantee programs, and collaboration in syndication to finance projects with expensive capex for risk sharing. While previous studies present these findings individually, this study consolidates them to create a sector-specific strategic profile. For example, Maybank's collaboration with BNI in syndicated EV project loans highlights the importance of risk sharing and capital leverage. Meanwhile, ADB's approach of linking blended finance with technical assistance shows the effectiveness of coupling financial and technical instruments. Finally, the combined key success factors from content analysis and benchmarking are critically relevant for informing the gap analysis and tailoring business solutions in alignment with KII's internal capabilities and strategic mandate under POJK 16/2024.

Internal and External Findings

This section presents both internal and external analysis to support the development of a strategic roadmap for KII in financing EV infrastructure. The internal analysis is using the Resource-Based View (RBV) framework, and the external analysis uses Porter's Five Forces. These frameworks help identify internal capabilities and external industry dynamics affecting KII's readiness and competitiveness. The preceding steps for these assessments are content analysis and a semi-structured interview with key participants. From interview transcripts, manual qualitative open coding is conducted based on distinct concepts or keywords, followed by axial coding to group the codes into broader thematic groups. Afterwards, a summary of each thematic group is created. Below is a summary of the interview results based on the thematic group.

Table 4. Interview Summary Based on Qualitative Open Coding

Theme	Resume of Interview
Market Condition of EV Infrastructure	The market is still small but expanding. There are a few players, and local financial institutions are still trying to learn extensively about the EV project. Developers also face challenges with local joint venture partner requirements. In addition, banks and sponsors also emphasize the importance of government support and regulatory clarity. Some banks, like Maybank, have a first-mover advantage due to their global reach.
Factors in financing an infrastructure project	Financing decisions are based on project economic sustainability, sponsor reputation, policy alignment, and regulatory certainty. These criteria are relevant for most industries, but need to be adjusted with EV-specific elements such as the offtaker / demand side, battery lifecycle, and impact on ESG.
Existing capability of KII	KII has experience in loan syndication, including playing lead arranger roles, and has an advisory division capable of preparing feasibility studies. These strengths allow KII to complement commercial banks by offering long-term, subordinated debt or even guarantee schemes.
Gaps and weaknesses of the current condition	The main internal weakness is the lack of technical experts in EV infrastructure, which limits KII's ability to conduct proper due diligence. There is also a lack of sector-specific benchmarks and structured internal training. In addition, KII's current mandate prevents the company from financing some of the EV ecosystem, such as raw material processing or automotive manufacturing plants, limiting the opportunity of obtaining new clients.
Consideration of financing the EV Infrastructure project	Respondents emphasized that project feasibility, economic viability, and ESG alignment are critical when financing a new sector. Due to a lack of sector knowledge and expertise, there is a higher risk of conducting name lending rather than comprehensive project-based lending. Several participants pointed out that KII's assessment should also adapt to EV-specific risks, such as supply chain volatility issues and offtaker certainty.
Financing mechanism for the EV Infrastructure project	Most financiers use term loans, working capital facilities, and syndicated structures backed by corporate guarantees and collateralized assets. Syndication allows risk sharing and is especially important given the capital intensity of EV infrastructure. Some also consider using green bonds or blended finance, although these are not yet common practice in Indonesia's EV sector.
Development is needed for implementation.	KII needs to expand its financing mandate to cover a broader range of EV ecosystem activities (e.g., battery raw material mining/processing, automotive manufacturing). Internally, this includes developing EV-specific risk assessment tools, engaging in sector-focused training, and building a comprehensive project pipeline. The lack of innovative financing products, such as specific blended finance instruments, reduces the company's competitiveness.
Market Entry Strategy	KII is quite passive in originating new projects, usually by referrals or public news. It is important to have a proactive origination strategy, collaborate with other banks and stakeholders to increase visibility in the EV sector, and establish the company's reputation with developers. KII could also launch pilot projects and explore syndication opportunities with more experienced banks.

Source: Research data, 2025

Internal Analysis

The internal analysis using RBV is conducted by evaluating KII's strategic assets and resources, then classifying them into strengths and weaknesses. The identified resources and capabilities are assessed in terms of the potential to provide a competitive advantage. This analysis separates the company's resources into tangible and intangible resources, which play an important role in enabling the company to compete in the EV infrastructure financing landscape.

Table 5. Internal Analysis Result of KII Using RBV

Aspects	Analysis	Category
Tangible Resources	Access to concessional and blended finance: Able to tap into climate funds and government mandates to offer low-interest rates for project financing	Strength
	Experience in project finance and syndication: Proven capacity to co-finance and structure complex infrastructure deals	Strength
	Advisory and technical assistance capability: Can support early-stage projects with feasibility and structuring services	Strength
	Ability to provide guarantees and equity participation: Potential to shape innovative loan structure or act as an enabler for complex deals	Strength
	No EV-specific technical or financial expertise: Lacks internal knowledge to assess charging systems, battery logistics, or its supporting infrastructure	Weakness
	Limited mandate scope within the EV value chain: Cannot finance upstream mining or downstream vehicle production under the current mandate by OJK	Weakness

Aspects	Analysis	Category
Intangible Resources	Slow internal processes: Loan origination and approval flows are lengthy compared to commercial banks due to more rigid analysis (project finance-based instead of name lending)	Weakness
	Underdeveloped credit tools for EV infrastructure: No tailored templates for evaluating risks and returns in the EV segment	Weakness
	Credibility as a government-backed financier: Trusted by public and private sectors for infrastructure financing due to SOE status	Strength
	Support for ESG and net-zero commitments: Strategically aligned with Indonesia's sustainability and electrification targets	Strength
	Reputation for governance and compliance: Maintains robust due diligence, credit, and risk management procedures	Strength
	Lack of a dedicated project pipeline for the EV sector: No proactive origination or early engagement with developers in this industry	Weakness
	Low familiarity with blended/green instrument deployment: Financial tools like results-based loans and green bonds are not yet specifically tailored for the EV infrastructure sector	Weakness
	Limited integration across divisions: Gaps in coordination between business development, credit, and ESG teams reduce agility	Weakness

Source: Research data, 2025

The internal analysis reveals that KII has a strong foundation of tangible resources to support its role in financing EV infrastructure projects. These resources include the ability to access blended finance, experience in structuring project finance and syndicated loans, and the capability to provide technical advisory for early-stage projects. In addition, KII is also able to provide a guarantee facility scheme and equity participation, hence offering beneficial value for developers looking for a strategic partner to de-risk the project. However, KII also has several weaknesses in terms of tangible resources, such as a lack of EV-specific technical expertise and credit evaluation tools, including limited mandate coverage within the EV infrastructure ecosystem. In addition, the internal process for providing loans is relatively slower compared to commercial banks, as the company has rigid project finance standards, while some commercial banks rely on name lending, which makes them more agile. Meanwhile, in terms of intangible resources, KII benefits from high credibility as a government-backed financier and strong alignment with national ESG and net-zero goals, which then provides additional comfort for the EV developers/stakeholders. However, some weaknesses are also evident due to the lack of a dedicated EV project pipeline, and the company still does not have a customized blended finance / green instrument for the EV infrastructure sector. Addressing these weaknesses will be very important for the company to leverage its institutional advantages in order to achieve its objective.

External Analysis

The external analysis using Porter's Five Forces is conducted to understand the landscape for EV infrastructure financing in Indonesia, by evaluating competitive pressures and environmental dynamics that could affect PT Katalis Infra Indonesia (KII). The evaluation will categorize each component of analysis into KII's opportunities and threats in doing the business activity to finance the EV infrastructure project.

Table 6. External Analysis Result of KII Using Porter's Five Forces

Aspects	Analysis	Category
Bargaining Power of Buyers (High)	Few banks are bankable for early EV developers in Indonesia, hence they can negotiate aggressively on loan terms.	Threat
	Financing Gaps: Developers often lack collateral or a financial track record, pressuring financiers to compromise or enter the project with a weaker position. This condition poses reputational risk for the lender if the project fails.	Threat
	Developers prefer lenders that offer flexibility and a fast process with a low interest rate, hence increasing competition from other agile lenders.	Threat
	Developers seek long-term financial partners, increasing buyer influence but also signaling demand for strategic financiers who can meet these expectations.	Opportunity
Bargaining Power of	Few local financiers have entered the EV infrastructure market, but no single institution dominates yet, creating an opportunity for KII to enter the market, starting with a smaller project.	Opportunity

Aspects	Analysis	Category
Suppliers (Moderate)	As developers gain more options from commercial banks and foreign investors entering the market, supplier leverage may decline further.	Threat
	Since KII does not yet have exposure, it limits the ability to shape project structures compared to more experienced global financiers. Hence, the risk-reward structure may be less favorable for KII.	Threat
Threat of New Entrants (Moderate)	Barriers to entry include high capital requirements, ESG compliance, and project finance expertise.	Opportunity
	Other banks or financial institutions may enter with green-focused funds or a faster lending process.	Threat
	The market remains underdeveloped with low infrastructure density. This gap creates space for new entrants to build a competitive advantage through faster and flexible offerings.	Opportunity
	Regulatory uncertainty creates hesitation for some new entrants, thus increasing risk in long-term strategy and project stability.	Threat
	As an SOE with government support, KII has benefit in shaping financing norms, but still must compete with commercial banks.	Opportunity
Threat of Substitution (Moderate)	Substitute sector / green investments, like solar or waste-to-energy, may divert the focus of both developers and financiers.	Threat
	Alternative financing models such as leasing, private equity, or green finance could serve EV developers beyond traditional loan options. However, they cannot fully substitute for large-scale infra finance.	Threat
	Macroeconomic factors like interest rates and inflation pressure capital markets. These conditions may shift investor focus to more stable infrastructure segments.	Threat
Competitive Rivalry (Moderate)	Current competition is limited but growing, with BNI, Maybank, and other banks showing increasing interest in EV-related lending.	Threat
	The ability to co-finance and syndicate can offer credibility and risk sharing between lenders, given the industry's relative youth.	Opportunity
	Lenders differentiate by offering faster processes, innovative loan structures, syndication capabilities, and strategic partnerships. In this regard, KII can offer blended finance or a guarantee.	Opportunity

Source: Research data, 2025

The external analysis using Porter's Five Forces shows that the bargaining power of buyers is high, mainly because the viable EV infrastructure project in Indonesia is still limited. Hence, these developers have the power to negotiate aggressively on credit terms and lower interest rates. This condition poses a threat to KII, such as reputational risk due to potential financing failure, but also provides an opportunity since KII can position itself as a long-term strategic partner to address early-stage risk and align with the developer's goals. The bargaining power of suppliers is moderate since no dominant financier has emerged in Indonesia's EV infrastructure ecosystem, hence providing opportunities for KII to secure the spot early. However, the threat also comes from the increasing number of commercial banks entering the market. In addition, KII's limited experience may hinder its ability to shape project structures or match competitors' risk-return expectations. Similarly, the threat of new entrants is also moderate, mainly because opportunities arise from the barriers to entry, which require a financier to have high capital and experience in project finance. However, once the commercial banks have this capability, it poses a threat to KII as commercial banks might be more agile and could also provide ESG-linked loans or green finance. The threat of substitution is deemed moderate as the substitute sector for green investment, such as hydrogen, and its alternative funding may divert developer focus in the industry and pose a threat to KII. Meanwhile, the competitive rivalry is also deemed moderate and growing, as commercial banks such as BNI and Maybank have already successfully financed EV projects in Indonesia. However, this also provides an opportunity to collaborate with other financiers by co-financing in syndication, or even providing complementary facilities such as a guarantee or blended finance to fill the gap in early-stage projects.

Gap Analysis Between KII's Capability and Key Success Factor

Upon conducting semi-structured interviews with key participants, the key success factors from content analysis and benchmarking are being validated. Accordingly, gap analysis is conducted between the key success factors and KII's current capability, as determined by previous analysis. This analysis is important to ensure that the strategy creation is aligned with the gap to improve KII's capability.

Table 7. Gap Between KII's Current Capability and Key Success Factor

Key Success Factor	KII's Current Capability	Gap Identified
Sector-specific expertise in EV infrastructure	No technical experts PIC on EV infrastructure and its ecosystem (charging systems, battery supply chains, or fleet economics)	Lack of technical capability to appraise EV-specific project risks and models
Availability of credit evaluation tools for EV infrastructure	Uses standard infrastructure credit scoring templates	No tailored framework to evaluate EV project risks (e.g., supply/demand condition, grid readiness)
Developer engagement and pipeline generation	Mostly pipeline generation sourced through referrals or public sector announcements.	No proactive pipeline development or developer partnership model
Green financing innovation (e.g., blended finance, ESG-linked loan)	Familiar with tools like blended finance and green bonds, but dedicated to a specific project sector, and does not include EV infrastructure	Lack of product adaptation and deployment strategy for applying innovative green finance to EV infrastructure projects
Institutional mandate to finance the ecosystem of EV infrastructure	Mandate recently expanded to EV infrastructure via POJK 16/2024, but is limited to only battery manufacturers and EV charging stations	KII is unable to finance upstream (e.g., mining) or downstream (e.g., fleet operators, OEMs), limiting its strategic reach in the EV ecosystem

Source: Research data, 2025

In order for KII to effectively participate in financing Indonesia's EV infrastructure, the company needs to address its capability gaps relative to the industry's critical success factors. The first gap is the company's lack of sector-specific technical expertise, which hampers the company's ability to perform comprehensive assessments or develop suitable financing structures. Addressing this gap would require capacity building through internal training, professional external hiring, or partnerships with sector specialists. The second gap is a lack of a credit framework specific to EV infrastructure projects, as the company relies on a generic scoring template that may not capture the specific risks related to the sector (such as supply chain constraints, grid readiness, and EV battery recycling). Hence, this condition limits the company's effectiveness in accurately assessing project viability and risk-adjusted returns. Accordingly, the third gap, where KII mostly sourced projects from referrals or public announcements, results in a lack of proactive pipeline development and limits involvement in early development projects. Fourth gap, while KII is familiar with green financial instruments such as blended finance and green bonds, it has not yet been customized for a specific EV infrastructure project. Hence, these instruments may not be able to match the early-stage, high-risk profile of EV projects. The final fifth gap is related to a partial regulatory mandate. Even though POJK 16/2024 has mandated the company to finance EV battery and charging infrastructure, the company still cannot finance the whole ecosystem of upstream (e.g., raw materials mining/processing) and downstream (e.g., fleet operators, OEMs) players. This limits KII's ability to support the entire EV ecosystem, making the company harder to source EV infrastructure projects without regulatory or institutional changes.

Strategy Formulation

This section presents the formulation of business strategies to address the gaps identified in the previous section. By combining the internal analysis from RBV and the external analysis from Porter's Five Forces, the SWOT (Strengths, Weaknesses, Opportunities, and Threats) matrix is created. The SWOT matrix was then developed into the TOWS matrix to formulate business strategies that match internal and external factors, where the strategies are designed to leverage KII's internal strengths, address existing weaknesses, and respond proactively to external opportunities and threats.

As shown in the figures below, the SWOT analysis provides a comprehensive understanding of KII's current capability by mapping its strengths and weaknesses, aligned with external factors such as threats and opportunities. The TOWS matrix then translates the business strategies into four quadrants, which are SO (Strength-Opportunity), WO (Weakness-Opportunity), ST (Strength-Threat), and WT (Weakness-Threat) combinations. In addition, each proposed strategy is developed with clear objectives and a corresponding gap of key success factors it aims to solve.

STRENGTH	WEAKNESS
S1 Credibility as a government-backed financier: Trusted by public and private sectors for infrastructure financing due to SOE status. S2 Access to concessional and blended finance: Able to tap into climate funds and government mandates to offer low interest rate for project financing. S3 Experience in project finance and syndication: Proven capacity to co-finance and structure complex infrastructure deals. S4 Support for ESG and net-zero commitments: Strategically aligned with Indonesia's sustainability and electrification targets. S5 Advisory and technical assistance capability: Can support early-stage projects with feasibility and structuring services. S6 Reputation for governance and compliance: Maintains robust due diligence, credit, and risk management procedures. S7 Ability to provide guarantees and equity participation: Potential to shape innovative loan structure or act as enabler for complex deal.	W1 No EV-specific technical or financial expertise: Lacks internal knowledge to assess charging systems, battery logistics, or its supporting infrastructure. W2 Limited mandate scope within EV value chain: Cannot finance upstream mining or downstream vehicle production under current mandate by OJK. W3 Slow internal processes: Loan origination and approval flows are lengthy compared to commercial banks due to more rigid analysis (project finance base instead of name lending). W4 Lack of dedicated project pipeline for EV sector: No proactive origination or early engagement with developers in this industry. W5 Underdeveloped credit tools for EV infrastructure: No tailored templates for evaluating risks and returns in the EV segment. W6 Low familiarity with blended/green instrument deployment: Financial tools like results-based loans and green bonds are not yet specifically tailored for EV infrastructure sector. W7 Limited integration across divisions: Gaps in coordination between business development, credit, and ESG teams reduce agility.
OPPORTUNITIES	THREAT
O1 Government support for EV ecosystem expansion: National roadmaps and incentives create strong policy backing for EV infra growth. O2 Untapped market for charging and battery infrastructure: Strong demand in cities, logistics, and public transport remains underserved. O3 Early-stage developers seeking strategic financiers: Developers prefer partners with long-term commitment, ESG credentials and can offer competitive interest rate. O4 Potential to co-finance with other financial institutions: Opportunities to join forces on structured deals and share underwriting responsibilities in syndication loan. O5 Blended finance can de-risk pioneering projects: Use of blended finance or guarantees to make early-stage deals more viable. O6 Ability to pilot and learn from small-scale transactions: Can build sector confidence through incremental exposure and controlled deals. O7 Influence over future regulatory and financial norms: KII's involvement can help shape frameworks for EV infrastructure project finance.	T1 Increased competition from agile lenders: Private banks and regional players may move faster and offer simpler terms with competitive interest rate. T2 Few bankable of early EV developers: Many lack financial history, collateral, or credible revenue models. T3 Uncertain regulatory landscape: Delays in permits, tariffs, or local content rules can derail projects. T4 Substitute sectors competing for capital: Solar, hydrogen, and clean logistics may draw investor attention away from EV infrastructure. T5 Macroeconomic volatility affects lending conditions: Rising interest rates and inflation could squeeze project margins and affordability. T6 Reputational risk from financing failures: Early-stage mistakes in project selection or execution could damage KII's credibility. T7 Diminishing leverage as more lenders enter: As the EV sector matures, KII's ability to shape deals may decline without clear differentiation.

Figure 3. KII SWOT Matrix

Source: Research data, 2025

Internal Factors	
External Factors	STRENGTHS (S)
	WEAKNESSES (W)
	SO Strategies
	WO Strategies
External Factors	THREATS (T)
	ST Strategies
	WT Strategies
	WT Strategies

Figure 4. KII TOWS Matrix

Source: Research data, 2025

Propose Strategies	Identified Gaps from Key Success Factor				
	Lack of technical capability to appraise EV-specific project risks and models	No tailored framework to evaluate EV project risks (e.g., supply / demand condition, grid readiness)	No proactive pipeline development or developer partnership model	Lack of product adaptation and deployment strategy for applying innovative green finance to EV infrastructure projects	SMI unable to finance upstream (e.g., mining) or downstream (e.g., fleet operators, OEMs), limiting its strategic reach in the EV ecosystem
S2S4-0104 Use concessional finance and ESG alignment to co-finance pilot EV infrastructure with public stakeholders (e.g. PLN)					
S4S5-0306 Provide ESG-structured advisory support to help early-stage developers improve project bankability					
S1S3-0406 Utilize syndication experience to partner with commercial banks on large EV projects, sharing exposure					
S6S7-0305 Provide guarantee facility to improve bankability of early-stage project and attract private co-investors					
W1-0102 Create training program (inhouse and public training) related to EV infra sector to build technical expert ise.					
W3W5W7-06 Develop EV-specific credit templates and pilot on a small-scale project					
W2-0107 Propose mandate expansion to OJK to cover broader EV ecosystem (e.g., upstream material mining / processing, fleets manufacture and OEM)					
W4-0103 Build a proactive developer engagement program targeting local and second-tier players					
W4-06 Explore equity investment in pilot-stage EV infrastructure projects to accelerate portfolio build-up					
S2S7-T1T2 Offer blended structures combining concessional loans and guarantees to compete with faster-moving lenders.					
S3S4-T1T6 Use syndication to share risk with private banks on pioneering or high-risk EV deals					
W1W5-T2T6 Hire professional experts in EV infrastructure landscape to support technical evaluation of projects					
W2W6-T2T6 Structure co-financing models with anchor clients or local governments to support bankability of early developers.					

Figure 5. Matching Proposed Strategies with Identified Gap from Key Success Factor

Source: Research data, 2025

Business Solution

This section presents the formulated business solutions to address the gaps identified for KII in financing the EV infrastructure project. Each strategy formulated in the previous section is being elaborated further into actionable solutions, with clear objectives and key initiatives designed to strengthen institutional readiness, expand project pipelines, enhance risk-sharing mechanisms, and improve developer engagement. The key actions were developed through insights obtained from content analysis, benchmarking with peer institutions, and expert interviews. These actions are created based on their practical feasibility, institutional relevance, and alignment with regulatory expectations under POJK 16/2024. These proposed strategies and key actions address the research objectives for increasing financing in EV infrastructure projects.

Table 8. Strategies, Elaboration, and Key Actions

Proposed Strategies	Objective	Key Actions
S2S4-0104 Use concessional finance and ESG alignment to co-finance pilot EV infrastructure with public stakeholders (e.g., PLN)	To demonstrate KII's ability to finance EV infrastructure through a high-visibility, de-risked pilot using concessional instruments.	- Identify a public-sector or state-owned partner (e.g., PLN or local government) for EV charging infrastructure. - Structure a concessional loan with ESG-linked criteria aligned to national goals - Publicize the pilot to build confidence and attract follow-up projects.
S4S5-0306 Provide ESG-structured advisory support to help early-stage developers improve project bankability	To support early-stage developers in achieving bankability and alignment with ESG standards.	- Develop an internal ESG-readiness checklist for EV infrastructure developers. - Offer advisory sessions or technical assistance grants during project planning. - Collaborate with the ESG team to guide alignment with KII's sustainable finance framework.

Proposed Strategies	Objective	Key Actions
S1S3-O4O6 Utilize syndication experience to partner with commercial banks on large EV projects, sharing exposure.	To reduce KII's risk exposure and expand its EV infrastructure pipeline through joint financing with commercial lenders	- Identify high-potential EV infrastructure deals suitable for syndication. - Approach bank partners to structure co-financing deals. - Use KII's experience in PPPs and syndication to lead the design of risk allocation.
S6S7-O3O5 Provide a guarantee facility to improve the bankability of early-stage projects and attract private co-investors	To enable more developers to qualify for financing by improving project risk profiles through guarantees	- Assess regulatory and financial readiness for guarantee deployment on EV infrastructure. - Coordinate with MoF or external Development Financial Institutions if risk-sharing support is needed.
W1-O1O2 Create a training program (in-house and public training) related to the EV infrastructure sector to build technical expertise.	To enhance internal technical and sectoral knowledge on EV infrastructure to improve project appraisal quality.	- Design a structured EV infrastructure curriculum with modules on technology, supply chain, and business models. - Partner with EV industry experts, PLN, or universities to deliver workshops. - Target training to credit analysts, BD team, and ESG team.
W3W5W7-O6 Develop EV-specific credit templates and pilot on a small-scale project	To enable effective risk evaluation and standardize credit assessments for EV infrastructure projects.	- Analyse common risk indicators in EV charging and battery infra projects. - Build credit assessment templates for pilot use. - Test template on 1–2 deals with controlled exposure and refine.
W2-O1O7 Propose mandate expansion to OJK to cover broader EV ecosystem (e.g., upstream material mining/processing, fleet manufacture, and OEM)	To broaden KII's eligible project scope across the EV ecosystem (e.g., logistics, fleets, OEMs).	- Draft proposal for OJK to include upstream and downstream EV segments under POJK 16/2024. - Provide justifications using project pipeline data and policy alignment. - Engage OJK and MoF in a structured dialogue or working group.
W4-O1O3 Build a proactive developer engagement program targeting local and second-tier players	To expand the project pipeline by identifying and supporting emerging EV developers.	- Map emerging EV infrastructure developers across regions and sectors. - Conduct regular outreach events, webinars, and pre-screening support. - Build a "developer pipeline tracker" to monitor engagement and deal flow.
W4-O6 Explore equity investment in pilot-stage EV infrastructure projects to accelerate portfolio build-up	To increase participation in high-potential EV projects that are not yet ready for debt financing	- Identify investment policy room and legal boundaries for equity participation. - Select a few high-impact projects for equity stake or convertible instrument pilot. - Monitor exit readiness and expected impact on future loan pipeline.
S2S7-T1T2 Offer blended structures combining concessional loans and guarantees to compete with faster-moving lenders.	To maintain competitive positioning by offering de-risked financial products to early movers.	- Structure blended finance packages with concessional terms or partial guarantees. - Offer ESG incentives (e.g., better pricing for climate-aligned projects). - Promote the blended finance toolkit internally and externally.
S3S4-T1T6 Use syndication to share risk with private banks on pioneering or high-risk EV deals	The goal is to reduce KII's exposure to high-risk EV projects while supporting market entry.	- Co-lead syndication with banks to share due diligence and documentation. - Position KII as the structuring partner for public-private participation.
W1W5-T2T6 Hire professional experts in the EV infrastructure landscape to support the technical evaluation of projects	To compensate for internal knowledge gaps in the EV infrastructure project, risk, and viability	- Recruit technical experts on the EV ecosystem into the credit team. - Integrate expert input into deal appraisal, risk evaluation processes, and development of credit template. - Document and transfer knowledge through internal playbooks and training.

Proposed Strategies	Objective	Key Actions
W2W6-T2T6 Structure co-financing models with anchor clients or local governments to support bankability of early developers.	To improve the bankability of early developers by backing them with strategic partners.	- Identify local governments or anchor corporate clients with clean mobility transformation plans. - Facilitate joint structuring or co-guarantee mechanisms for specific projects.

Source: Research data, 2025

To address the lack of exposure in EV infrastructure financing and demonstrate its capacity, KII should initiate a pilot project collaborating with SOE or public partners such as PLN. By aligning with ESG goals and structuring loans with a blended finance scheme, this strategy helps build internal confidence and external credibility. In addition to this, KII could also offer advisory support for early-stage project developers to make the project viable, which will further improve KII's reputation as a strategic partner in sustainable financing for this sector. To expand the company's pipeline, KII should leverage its syndication experience by identifying high-potential projects and arranging deals with commercial banks to share risk. In addition, KII should also leverage its ability to provide guarantee schemes to reduce the risk for financiers and attract more investors. This action requires active engagement with MoF and relevant institutions to assess the risk appetite and develop the specific guarantee schemes. These strategies directly enhance KII's ability to support the early-stage and high-risk projects in the EV ecosystem.

For the company to overcome internal capability limitations, KII needs to address the knowledge gaps through hiring professional experts, which could help in knowledge transfer and ensure better assessment of EV projects. Then, KII should create a comprehensive capacity-building program, using both in-house and public training specific to the EV infrastructure sector. In addition, the company should also develop tailored credit templates and pilot them on a small-scale project, which serves as a learning experience and can be refined iteratively. On the other hand, the company should also pursue mandate expansion by proposing to OJK to include the mandate for financing the upstream and downstream side of the EV ecosystem, which will allow KII to increase its strategic reach and enable proactive engagement with developers, as well as provide equity participation with anchor partners where applicable.

Implementation Plan

Proposed Strategies	Function in Charge	2025		2026			
		Q3	Q4	Q1	Q2	Q3	Q4
W1W5-T2T6 Hire professional experts in EV infrastructure landscape to support technical evaluation of projects	Business Development Team, Credit Risk Team						
W1-O1O2 Create training program (inhouse and public training) related to EV infra sector to build technical expertise.	Human Resources Team, Business Development Team, Credit Risk Team						
W3W5W7-O6 Develop EV-specific credit templates and pilot on a small-scale project	Credit Risk Team						
W2-O1O7 Propose mandate expansion to OJK to cover broader EV ecosystem (e.g., upstream material mining / processing, fleets manufacture and OEM)	Corporate Planning Team, Legal Team						
W4-O1O3 Build a proactive developer engagement program targeting local and second-tier players	Business Development Team						
S1S3-O4O6 Utilize syndication experience to partner with commercial banks on large EV projects, sharing exposure.	Business Development Team						
S3S4-T1T6 Use syndication to share risk with private banks on pioneering or high-risk EV deals	Business Development Team, Credit Risk Team						
S2S4-O1O4 Use concessional finance and ESG alignment to co-finance pilot EV infrastructure with public stakeholders (e.g. PLN)	Business Development Team, ESG Team						
S4S5-O3O6 Provide ESG-structured advisory support to help early-stage developers improve project bankability	Business Development Team, ESG Team						
S6S7-O3O5 Provide guarantee facility to improve bankability of early-stage project and attract private co-investors	Business Development Team, Credit Risk Team						
S2S7-T1T2 Offer blended structures combining concessional loans and guarantees to compete with faster-moving lenders.	Business Development Team, ESG Team, Credit Risk Team						
W2W6-T2T6 Structure co-financing models with anchor clients or local governments to support bankability of early developers.	Business Development Team, Credit Risk Team, Legal Team						
W4-O6 Explore equity investment in pilot-stage EV infrastructure projects to accelerate portfolio build-up	Business Development Team, Legal Team						

Figure 6. Proposed Implementation Plan

Source: Research data, 2025

This section translates the proposed strategies into a practical implementation plan, including timelines and stakeholder responsibilities to ensure effective execution. The implementation shown below is a suggestion from the author, which requires further discussion and assessment with management. The

time frame for this implementation plan is set until the end of 2026. The roadmap prioritizes feasibility by balancing quick wins with longer-term shifts.

D. CONCLUSION

This study contributes a real-world example of designing a strategy in the infrastructure financing domain. It offers a unique case where regulatory shifts are met with structured internal transformation, an area rarely explored in existing literature. The research concludes by synthesizing the results of previous analysis and aligning them with the research objectives. The goal of this study is to synthesize business strategies for PT Katalis Infra Indonesia (KII) to expand financing exposure in the EV infrastructure sector, along with the implementation plan. The study began by identifying key business issues. KII received a mandate expansion under POJK 16/2024 to finance an EV infrastructure project, but the company was still unable to finance any EV infrastructure project until May 2025.

To solve the research objectives, several analytical tools were employed. A benchmarking and content analysis approach identified initial key success factors from peer institutions and global best practices. Then, internal and external analyses were also conducted through RBV and Porter's Five Forces, using a literature review and semi-structured interviews. Combined with gap analysis, this assessment validates the key success factor and solves the first research objective. For the second research objective, the issue was addressed by using a SWOT matrix, which was then developed into a TOWS matrix. This TOWS matrix derived several strategies across four quadrants, which are SO (Strength-Opportunity), WO (Weakness-Opportunity), ST (Strength-Threat), and WT (Weakness-Threat) combinations. The formulated strategies from the TOWS matrix. These strategies are then elaborated further into actionable solutions. Finally, the solution for the third research objective regarding the implementation plan is created from the author's perspective, including the timeline and each stakeholder's responsibilities. The implementation plan still needs to be discussed and assessed by the management.

Limitations and Suggestions for Future Research

Considering KII's limited capability in financing EV infrastructure, the author recommends KII to employ several strategies such as hiring a professional technical expert in the EV infrastructure sector, developing EV EV-specific credit template, creating a training program related to the sector, propose mandate expansion for whole EV ecosystem, and leverage blended financial instrument to attract early stage developers. The proposed implementation plan also serves as a blueprint for the groundwork for KII to expand its financing exposure in the EV infrastructure sector, but it still needs to be validated by management. It is also to be noted that this qualitative research is subject to several limitations during the process. First, the research focuses on PT Katalis Infra Indonesia, which recently received a mandate to finance a new sector, while the sector itself is still in its early stages. There is limited empirical data / historical performance regarding EV infrastructure projects in Indonesia, which limits the financial modelling accuracy for strategy validation. Second, limited external perspectives, as only a few banks in Indonesia have entered the EV infrastructure sector. If the interview also includes global EV infrastructure financiers or regulators, it may bring broader perspectives and enrich the understanding of key success factors. Lastly, since the regulatory framework for EV infrastructure in Indonesia is still evolving due to its early stage, it may alter the feasibility or strategies over time. Based on the above limitations, authors recommend for future research to: 1) conduct quantitative studies to measure the financial capability and risk profile of EV infrastructure project; 2) explore the perspective from global financier and regulator in EV infrastructure sector to obtain broader perspective of the ecosystem; and 3) comparative analysis with other countries that have successfully established EV ecosystem, regarding the long-term impact of EV infrastructure financing.

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