

Integrating ESG Principles in Financing Practices at Clove Bank: A Literature Review

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Abstract

Climate change is a global challenge with far-reaching consequences, prompting the establishment of the Paris Agreement in 2015 under the United Nations Framework Convention on Climate Change (UNFCCC). As a signatory since 2016, Indonesia has demonstrated its commitment to addressing climate change through an enhanced Nationally Determined Contribution (NDC) and long-term strategic plans. A pivotal element in achieving Indonesia's Net Zero Emission target by 2060 is the role of financial institutions in adopting sustainable financing practices. The Financial Services Authority of Indonesia (OJK) has mandated such practices across the financial sector to mobilize the required financial support. This study investigates Clove Bank, Indonesia's largest transactional bank, analyzing its role in advancing sustainable financing to support national climate goals. Using a structured literature review, the research develops a conceptual framework to assess the bank's internal capabilities and the external environment influencing sustainable finance practices. The findings highlight critical factors for effective implementation and propose a framework applicable to broader financial sector stakeholders. The study addresses a notable gap in the literature on sustainable finance in Indonesia, providing novel insights and practical strategies. Future research could explore additional dimensions or comparative case studies to enhance the understanding and application of sustainable finance.

Keywords: ESG, Sustainable Financing, Green Financing, Indonesian Bank, Sustainable Framework

A. INTRODUCTION

Climate change is one of our most pressing global challenges, impacting communities, ecosystems, and economies. Manifesting in phenomena such as rising sea levels and more frequent severe weather events, its effects underscore the urgency of coordinated and comprehensive action across all sectors. In response to this critical issue, the Paris Agreement, launched in 2015 under the United Nations Framework Convention on Climate Change (UNFCCC), established an ambitious global framework aimed at significantly reducing greenhouse gas emissions and limiting global temperature increases to well below 2°C (United Nations, 2015). Indonesia ratified the Paris Agreement in 2016, committing to an enhanced Nationally Determined Contribution (NDC) and targeting net zero emissions by 2060. As reflected in its strategic plans and policies, these commitments underscore the nation's dedication to climate mitigation and adaptation. A key enabler of these efforts is the financial sector, which has the potential to mobilize significant resources toward sustainable projects and foster a green economic transition. Recognizing this, the Financial Services Authority of Indonesia (Otoritas Jasa Keuangan, OJK) has introduced regulations promoting sustainable financing practices across financial institutions.

Despite these advancements, adopting sustainable financing practices in Indonesia remains uneven, hampered by challenges such as weak governance frameworks, limited technological infrastructure, and a shortage of expertise in sustainability. While global research on sustainable financing has grown, much of it centers on the experiences of developed economies, limiting its relevance to Indonesia's unique socio-economic and regulatory context. Existing studies in Indonesia tend to focus on high-level policy discussions rather than providing institution-specific, actionable guidance. Within this context, Clove Bank, Indonesia's largest transactional bank, is pivotal in the financial ecosystem. Its extensive market reach and significant influence position it as a key driver of sustainable financing initiatives. However, like many financial institutions in Indonesia, Clove Bank lacks a structured framework to guide its adoption of sustainable financing practices. This gap impedes compliance with regulatory expectations and restricts the bank's ability to contribute effectively to Indonesia's broader sustainability agenda.

This study addresses this gap by developing a conceptual framework tailored to Clove Bank's operations. The framework is built on six critical dimensions—governance, financial instruments, human capital, corporate

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culture, processes, and technology—and draws insights from a structured literature review, global best practices, and local conditions. The research seeks to bridge the gap between theory and practice, offering actionable recommendations that enable Clove Bank to integrate sustainable financing into its operations effectively. By providing institution-specific guidance, this study contributes to the broader discourse on sustainable finance and supports Indonesia's financial sector in achieving the nation's climate goals. Furthermore, it lays the groundwork for future research to refine and expand sustainable financing strategies within Indonesia and other emerging economies.

B. RESEARCH METHODS

This study adopts a phased research approach to develop a sustainable financing framework for Clove Bank. The research is divided into three sequential phases to ensure a structured and comprehensive analysis. Phase One focuses on a structured literature review, serving as the theoretical foundation for the entire study. This phase involves an in-depth analysis of case studies, industry reports, scholarly publications, and regulatory documents to identify critical elements, challenges, and opportunities in implementing Environmental, Social, and Governance (ESG) principles within financial institutions. The insights gathered are synthesized into a conceptual framework that addresses six key dimensions: governance, financial instruments, human capital, corporate culture, processes, and technology.

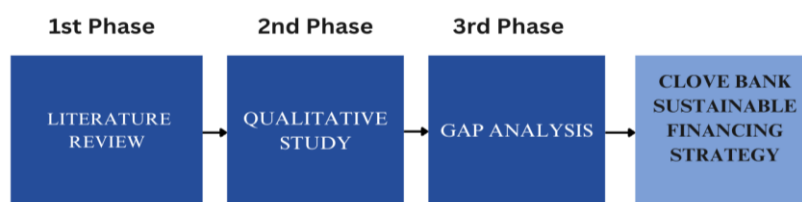


Figure 1. Stages of Studies

In Phase Two, qualitative methods such as in-depth interviews and focus group discussions will be conducted with Clove Bank stakeholders. This phase aims to gather insights into their perspectives, challenges, and readiness for adopting sustainable financing practices. The qualitative data will complement the conceptual framework, offering a deeper understanding of the internal and external factors influencing sustainability integration. Finally, Phase Three will involve a gap analysis, comparing Clove Bank's current sustainable financing practices against the conceptual framework developed in the first phase. This analysis will identify improvement areas and provide actionable strategies to enhance the bank's alignment with sustainability goals. The culmination of these three phases will result in the formulation of a comprehensive Clove Bank Sustainable Financing Strategy, designed to support the bank's role in advancing Indonesia's climate and sustainability agenda.

C. RESULTS AND DISCUSSION

The concept of sustainable finance is inseparable from the Environmental, Social, and Governance (ESG) framework, which has become the cornerstone of financial decision-making globally. ESG focuses on three critical dimensions—environmental, social, and governance—offering a structured approach to integrating sustainability into routine business operations. Companies that adopt ESG principles align their activities with corporate governance, regulatory compliance, transparency, and ethical corporate behavior (Li et al., 2021). Once considered an afterthought, the ESG framework has evolved into a fundamental aspect of financial performance and risk management. Empirical studies reveal that companies incorporating ESG principles mitigate risks and deliver long-term benefits to their stakeholders. For instance, (Friede et al., 2015) reviewed over 2,000 studies and concluded that firms adhering to ESG guidelines typically achieve superior financial outcomes driven by enhanced innovation, reputation, and risk management. Furthermore, banks that integrate sustainability practices often experience improved long-term performance, particularly in metrics such as return on equity (ROE) and return on assets (ROA) (Eccles et al., 2014).

For financial institutions, ESG integration aligns closely with the triple bottom line (TBL) approach, emphasizing the balance between people, planet, and profit (Elkington, 1998). By adopting ESG practices, banks can meet regulatory standards, reduce social and environmental risks, attract sustainability-conscious investors, and maintain long-term competitiveness, all while generating positive societal impacts. Sustainable finance builds on the ESG framework by embedding these principles into lending, investment, and decision-making processes,

extending their influence across the financial ecosystem. Unlike traditional finance prioritizes short-term profitability, sustainable finance addresses broader societal and environmental concerns (Schoenmaker & Schramade, 2019). While definitions of sustainable finance vary, organizations such as the European Banking Authority (EBA) highlight its role in fostering economic growth while minimizing social and environmental risks (Li et al., 2021).

In Indonesia, sustainable finance is defined by the Financial Services Authority (OJK) as the financial sector's contribution to achieving sustainable economic growth through the integration of environmental, social, and economic objectives. OJK outlines key goals of sustainable finance, which include: 1) Supporting initiatives to mitigate global warming and promote green growth; 2) Enhancing the competitiveness of financial institutions through improved risk management; 3) Reducing socio-economic inequality and environmental degradation while preserving biodiversity; and 4) Creating innovative financial products aligned with sustainability objectives. Financial instruments such as green loans, sustainability-linked loans (SLLs), and social impact financing are pivotal in achieving these goals. Green loans support environmentally beneficial projects like renewable energy and waste management, while SLLs provide borrowers with incentives linked to achieving specific sustainability targets. Additionally, social impact financing supports initiatives in areas like healthcare, education, and affordable housing. Micro, Small, and Medium Enterprise (MSME) financing also contributes to economic development, entrepreneurship, and innovation (Thorsten et al., 2008).

Despite these advancements, sustainable finance faces challenges, particularly in developing countries. Ambiguities in defining sustainable finance, as highlighted by (Eyre et al., 2024), can undermine its credibility and hinder implementation. Sustainable finance risks losing legitimacy without precise alignment with global frameworks such as the Sustainable Development Goals (SDGs) and the Paris Agreement. Similarly, the lack of uniform standards may create barriers to developing cohesive frameworks and expose markets to risks, particularly in emerging economies (Sisodia & Maheshwari, 2023). To address these concerns, aligning sustainable finance with global frameworks like the Paris Agreement and SDGs ensures credibility and effectiveness in tackling environmental and social challenges. However, persistent issues such as greenwashing and limited transparency require urgent attention. Initiatives such as the Task Force on Climate-related Financial Disclosures (TCFD) and the EU Taxonomy aim to enhance accountability by prioritizing clear policies and risk analysis (Dimmelmeier, 2024).

From a financial perspective, ESG adoption offers a competitive advantage through improved risk management, enhanced reputation, and access to new markets. Regulatory systems, such as POJK 51/2017 in Indonesia, are critical in driving ESG integration and enabling banks to adapt to evolving market demands. Beyond addressing global challenges, sustainable finance strengthens institutional resilience and supports long-term profitability. Empirical evidence further validates this, with Friede, Busch, and Bassen (2015) reporting that 90% of studies indicate a neutral or positive relationship between ESG integration and financial performance. Developing a robust, sustainable financing framework requires balancing internal and external considerations. Internally, the Resource-Based View (RBV) emphasizes the strategic use of institutional resources, such as sustainable financial instruments, governance structures, and alignment with investor and customer expectations, to achieve a competitive advantage. Externally, factors such as regulatory demands, investor expectations, and market competition significantly influence the operationalization of ESG initiatives. Long-term success in sustainable finance ultimately depends on the synergy between these internal resources and external drivers.

Internal Elements of Sustainable Finance

The successful implementation of sustainable finance relies heavily on several internal elements that enable financial institutions to embed Environmental, Social, and Governance (ESG) principles into their operations. These elements include financial resources, human competency, sustainable financing instruments, operational procedures and technology, ESG governance, and organizational culture.

1. **Financial Resources:** Institutions with robust financial capacity are better positioned to fund innovative sustainability initiatives and implement complex ESG frameworks. These resources facilitate the creation of ESG-oriented financial products such as sustainability-linked loans, green bonds, and socially responsible investment portfolios. In addition to meeting growing demand, these products provide a competitive advantage in attracting ESG-focused investors (Starks, 2023). Institutions can enhance their market positioning and contributions to addressing global sustainability challenges by leveraging their financial strength.

2. **Human Competency:** Skilled personnel are critical for driving innovation in sustainable financial products and ensuring compliance with evolving market and regulatory requirements. Employees with expertise in ESG values play a pivotal role in identifying opportunities and navigating the complexities of emerging regulations; as (Friede et al., 2015) suggest, institutions that foster ESG-related competencies can better capture the benefits associated with sustainability practices. For banks like Clove Bank, developing this knowledge through targeted training programs or hiring specialized staff is essential to staying competitive.
3. **Sustainable Financing Instruments:** Developing and deploying sustainable financing instruments are central to meeting consumer expectations and addressing broader social issues. Tools such as green bonds, sustainability-linked loans (SLLs), and socially responsible investment funds provide financial institutions with effective mechanisms to tackle inequality, mitigate climate change, and seize economic opportunities. These instruments attract institutional investors seeking to balance ethical considerations with financial returns and demonstrate the institution's commitment to sustainability (van der Zwan & van der Heide, 2024).
4. **Operational Procedures and Technology:** Integrating ESG principles into the operations of financial institutions requires streamlined procedures that embed sustainability into key processes, such as risk assessments, decision-making, and client onboarding. These procedures ensure that ESG goals are effectively achieved and regulatory requirements are met. In Indonesia, for example, frameworks like POJK 51/2017 emphasize accountability in ESG implementation and reporting (Otoritas Jasa Keuangan, 2017). Modern technological tools enhance these processes by improving compliance tracking and measuring social and environmental impacts. As (Friede et al., 2015) observed, technological innovation is essential for boosting the operational efficiency of ESG integration, particularly as institutions face increasing legal and market demands.
5. **ESG Governance:** Effective governance mechanisms are crucial for embedding ESG principles into an institution's strategic priorities. This includes establishing ESG-specific policies, delegating board-level responsibilities, and fostering a business culture that prioritizes sustainability. Institutions with strong ESG governance, such as dedicated sustainability committees or accountability systems, are better equipped to meet regulatory requirements and stakeholder expectations (Li, 2021). Governance structures emphasizing transparency and accountability provide a strong foundation for long-term sustainability.
6. **Organizational Culture:** The organizational culture of a financial institution significantly influences how sustainability principles are implemented. A culture that prioritizes ESG values encourages employees at all levels to integrate sustainability into their daily operations. A strong internal alignment around ESG enhances internal cohesiveness and improves the institution's external reputation as a socially conscious organization (Waddock & Rasche, 2012). By fostering a culture of sustainability, financial institutions can ensure that ESG values are deeply embedded in their practices and reflected in their interactions with stakeholders.

External Elements in Sustainable Finance

External factors strongly influence the implementation of sustainable finance within financial institutions. These include regulatory frameworks, investor attitudes, consumer preferences, market competition, and collective action. These elements shape how institutions align their operations with sustainability goals.

1. **Framework of Regulations:** Strong regulatory frameworks are essential for supporting sustainable finance, ensuring accountability, transparency, and alignment with global sustainability targets. Effective governance at the public level fosters a transition to sustainability by moving beyond market-driven incentives or voluntary actions and embracing government-led strategies (Baines & Sandy, 2023). In Indonesia, regulations like POJK 51/2017 mandate financial institutions to incorporate ESG principles into their strategic operations. This includes developing Sustainable Finance Action Plans and providing annual sustainability reports (Otoritas Jasa Keuangan, 2017). While these measures align institutions with global sustainability goals, discrepancies in interpretation can lead to pragmatic challenges during implementation (Setyowati, 2023). A robust regulatory framework ensures that sustainable finance practices are effectively integrated into operations and provide a clear path toward achieving environmental and social objectives (Johnstone et al., 2022).
2. **Investor Attitudes:** Institutional investors increasingly seek ESG-aligned financial solutions as part of their portfolio strategies. While this shift aligns ethically with broader societal goals, such as reducing carbon emissions, ESG considerations are also viewed to mitigate risks associated with environmental liabilities and regulatory compliance (Starks, 2023). Financial products like green bonds and socially conscious investment portfolios meet these needs, enabling financial institutions to attract funds from ESG-focused investors (van

- der Zwan & van der Heide, 2024). Additionally, investors progressively prioritize higher ESG ratings in their portfolios, recognizing their dual importance in financial materiality and ethical responsibility (Matthias et al., 2024).
3. **Consumer Preferences:** Besides investors, individual consumers increasingly prioritize sustainability in their financial decisions. Products such as green mortgages, eco-friendly savings accounts, and sustainability-linked loans have become critical offerings to address this demand. Banks that fail to cater to these consumer preferences risk losing market share to competitors that are better aligned with ESG values (Waddock & Rasche, 2012). Meeting consumer demand for sustainable financial products ensures market competitiveness and reinforces the institution's reputation as a socially responsible organization.
 4. **Market Rivals:** As leading financial institutions like DBS and BNP Paribas set global standards in sustainable finance, market competition has intensified. This places significant pressure on other financial institutions to innovate and offer original ESG-aligned solutions. For instance, Clove Bank must align its ESG objectives with international best practices to remain competitive in a market where sustainability is increasingly becoming the norm (Paribas, 2023; DBS Group Holding Ltd, 2023). Institutions that fail to keep pace with evolving standards risk falling behind in an industry where ESG integration is no longer optional but imperative.
 5. **Collective Action:** Sustainable finance requires coordinated efforts among governments, businesses, and financial institutions to drive meaningful change. Public policies such as carbon taxes and reductions in fossil fuel subsidies are crucial for creating an environment where sustainable finance can thrive (Strauß, 2023; Baines & Sandy, 2023). Collaboration with international organizations such as the World Bank, Asian Development Bank (ADB), and International Finance Corporation (IFC) enables financial institutions to access significant capital and technical expertise. These partnerships help align institutional sustainability initiatives with global frameworks like the Paris Agreement and the UN Sustainable Development Goals (SDGs) (Aizawa & Yang, 2010).

Collaboration between governments and non-governmental organizations (NGOs) also plays a key role in addressing national development goals and social issues. Governments provide incentives, such as tax exemptions or subsidies for renewable energy projects, while NGOs contribute local expertise and advocacy to help financial institutions design products that address social and environmental needs (Delmas & Montes-Sancho, 2010). These alliances strengthen financial institutions' ability to achieve local and global environmental goals.

Synthesis of Findings

The external factors outlined above highlight the importance of aligning financial practices with sustainability objectives through robust regulatory frameworks, investor and consumer engagement, market competitiveness, and collaborative efforts. These insights, derived from the literature, form the basis for a comprehensive conceptual framework designed to guide the incorporation of sustainable finance practices into banking operations. By addressing internal and external elements, this framework offers a holistic approach to achieving sustainability goals in the financial sector.

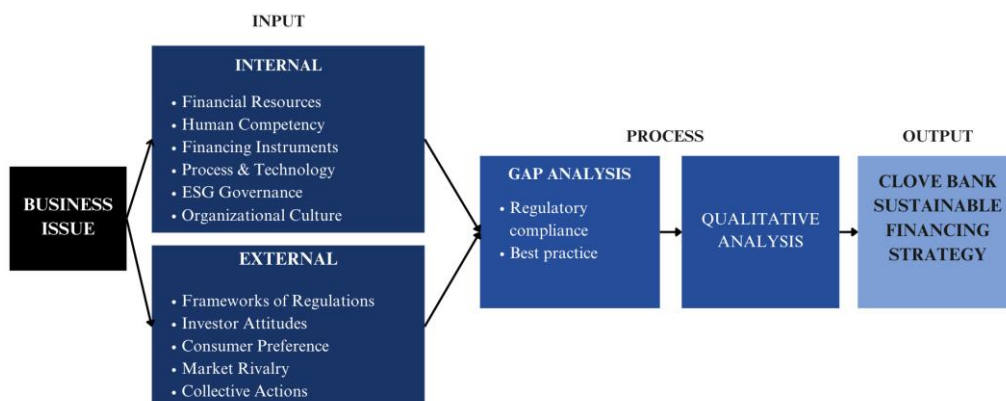


Figure 2. Proposed Framework

CONCLUSION

This study aimed to develop a conceptual framework tailored to Clove Bank to integrate sustainable financing practices into its operations. By conducting a structured literature review, the research highlighted the increasing necessity for financial institutions to adopt Environmental, Social, and Governance (ESG) principles, aligning their strategies with global sustainability goals such as the Paris Agreement and Indonesia's POJK 51/2017 regulation. The findings emphasize the pivotal role of internal factors—including financial resources, human expertise, sustainable financing instruments, operational processes, ESG governance, and organizational culture—in driving sustainable finance initiatives. These internal resources are essential for creating innovative financial products, such as green bonds and sustainability-linked loans, which meet market demand and enhance financial institutions' competitive advantage. External factors also play a significant role in shaping the landscape of sustainable finance. Regulatory frameworks like POJK 51/2017 provide a foundation for ESG adoption, while investor expectations, consumer preferences, market competition, and the need for collective action continuously drive institutions to innovate and align with global best practices. Furthermore, the study underscores the importance of public-private partnerships and collaborations with international organizations in addressing systemic challenges and advancing sustainability objectives on a global scale. This research primarily focused on establishing a theoretical foundation through a structured literature review.

The proposed conceptual framework serves as a basis for future empirical studies. Subsequent phases of this research should include qualitative methods to validate the framework and identify institution-specific challenges and opportunities. Additionally, a gap analysis comparing Clove Bank's current and global best practices could refine the framework and offer actionable implementation strategies. Future research directions could explore additional dimensions, such as assessing the socio-economic impact of sustainable finance initiatives and integrating emerging technologies, like artificial intelligence, into ESG processes. Comparative studies involving multiple financial institutions, regions, or sectors could provide valuable insights into the scalability and adaptability of the proposed framework. Ultimately, this study contributes to the academic discourse on sustainable finance while offering practical guidance for Indonesian financial institutions, including Clove Bank. By addressing internal and external elements, the proposed conceptual framework equips Clove Bank to strengthen its market positioning, align its operations with sustainability objectives, and assume leadership in advancing Indonesia's climate commitments and sustainability goals.

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