Indonesian Banking Review
Volume 4, Number 1, 2025

Green Banking in Islamic Banking: ESG Strategy for a Green Economy

Fuad Mas'ud [1]

[1] Universitas Diponegoro, Semarang, Indonesia

Abstract

Article history:
Received: January 23, 2025
Revised: February 16, 2025
Accepted: April 27, 2025
Published: June 30, 2025

Keywords:
ESG,
Green Banking,
Green Economy,
Islamic Banking,
Sustainable Finance.

Identifier:
Zera Open
Page: 1-17
https://zeraopen.com/journal/ibr

International trends in sustainable finance, the green economy, and Environmental, Social, and Governance (ESG) highlight a global paradigm shift in modern financial practices. Green finance emphasizes funding environmentally friendly projects, while ESG provides a comprehensive framework for evaluating corporate sustainability performance. Both serve as essential pillars in building a resilient green economy that balances growth with ecological and social responsibilities. The banking sector, particularly Islamic banking, plays a strategic role in accelerating the transition toward a low-carbon economy by offering sustainable financing, developing innovative financial instruments such as green sukuk and green bonds, and adopting the Triple Bottom Line approach. Nevertheless, several challenges persist, including the limited availability of green projects, long-term investment risks, and institutional readiness to adapt to sustainable frameworks. In Indonesia, Bank Indonesia and the Financial Services Authority (*Otoritas Jasa Keuangan*/OJK) contribute significantly by designing sustainable finance policies aligned with the Sustainable Development Goals (SDGs). This article applies a literature review method to analyze the roles, opportunities, and barriers of green banking in the context of Islamic banking.

*Corresponding author:
(Fuad Mas'ud)

1. Introduction

The Global developments in the financial sector show a fundamental shift from the conventional paradigm towards more sustainability-oriented practices. The concept of sustainable finance was born from the need to balance economic growth with environmental protection and social welfare. This approach involves the integration of environmental, social, and governance (ESG) aspects into investment and financing decision-making processes. This is not just a trend, but a systemic response to global challenges such as climate change, social inequality, and ecological degradation (Rahmaty, 2023).Within the ESG framework, the environmental dimension covers corporate practices that contribute to climate change mitigation, energy efficiency, and pollution reduction. The social dimension assesses a company's impact on its community, workforce, and supply chain. Meanwhile, the governance dimension relates to management transparency, ethics, and accountability.

The implementation of ESG has been proven to increase investor trust and strengthen a company's competitiveness in the global market (Musa, 2023). The banking sector holds a strategic position in the sustainable financial ecosystem. Banks serve as catalysts in channeling funds to green sectors, such as renewable energy, environmentally friendly transportation, and sustainable agriculture. More than just an intermediary institution, banks are now required to be agents of change through the innovation of green financial products. In Indonesia, for example, instruments such as green bonds and green sukuk have developed, providing alternative financing for environmentally friendly projects (Utomo et al., 2024).

Islamic banking holds a unique position in this context. The Shariah principles that emphasize justice, sustainability, and the prohibition of harmful practices (gharar, riba, and maysir) are aligned with ESG values. Studies show that the adoption of ESG in Islamic banking encourages the creation of innovative instruments such as green sukuk, which combine Shariah principles with sustainability goals (Sharofiddin et al., 2024).

However, the integration of green banking in Islamic banking faces several challenges. Among them are the limited number of viable green projects to finance, the high risk of long-term investments, and the limited internal capacity of Islamic financial institutions to understand and implement green concepts. In addition, policy incentives from the government and regulators are still needed to accelerate this transition (Ahmed et al., 2024). In the Indonesian context, Bank Indonesia (BI) acts as the monetary authority that maintains the stability of the financial system, while the Financial Services Authority (*Otoritas Jasa Keuangan* /OJK) takes the main role in the regulation and supervision of financial institutions. The Sustainable Finance Roadmap Phase II launched by the OJK is an important milestone in building a more comprehensive, transparent, and inclusive financial ecosystem.

This Roadmap encourages the widespread adoption of ESG principles in the financial services sector, while supporting the achievement of the Sustainable Development Goals (SDGs) and national commitments to climate targets (Harahap et al., 2022).Thus, the development of green banking in Islamic banking is not only a financial innovation but also a real contribution to the global agenda for achieving sustainable development. This article attempts to analyze the trends, challenges, and opportunities of green banking in the context of Islamic finance using a comprehensive literature review method.

2. Literature Review

2.1. Sustainable Finance, Green Economy, and ESG

Sustainable finance is developing rapidly as a real answer to various global challenges that are becoming more complex and demanding a transformation of the financial system to be more inclusive, adaptive, and oriented towards long-term sustainability. This concept is not only a trend but an urgent need to ensure that economic growth is no longer based on the exploitation of natural resources alone, but on the principles of balance between the economy, environment, and society. The green economy itself promotes a development model that consistently seeks to reduce carbon emissions, increase energy efficiency, encourage environmentally friendly innovation, and strengthen social justice in various aspects of community life. ESG then comes as a comprehensive evaluative framework to measure the extent to which a company truly implements sustainability principles in its operations, governance, and social responsibility.

The integration of ESG is proven not only to increase a company's reputation in the eyes of the public and investors but also to reduce long-term financial risks that have the potential to hinder company performance (Rahmaty, 2023).In a global context, financial institutions are progressively starting to adopt green instruments such as green bonds, green sukuk, and various financing schemes for renewable energy projects that support the transition to a low-carbon economy. Musa's (2023) study emphasizes that the implementation of ESG in the financial sector not only has an impact on the stability of the financial system but can also create an ecosystem that supports value-based intermediation (VBI), especially within the framework of Islamic finance which upholds the values of sustainability, ethics, and balance of interests.

2.2.Green Banking and Islamic Banking

Green banking is a modern banking strategy that specifically integrates environmentally and socially friendly practices into every aspect of operations and credit policies carried out by financial institutions. This concept is not just an innovation but an urgent need to ensure the sustainability of the banking sector amid increasing issues of climate change and social inequality. Green banking is rooted in the Triple Bottom Line principle (Profit, People, Planet), which is a framework that asserts that the achievement of financial profit should not be done by ignoring the social impact on society and the environmental damage caused (Bukhari et al., 2020).

In the context of Islamic banking, the concept of green banking gains higher relevance because Shariah principles from the outset emphasize the importance of the values of justice, sustainability, ethics, and balance. A study by Utomo et al. (2024) confirms that green financial instruments such as green sukuk have become one of the important forms of innovation in supporting the Shariah-compliant sustainable financing agenda. Green sukuk not only finance environmentally friendly projects but also strengthen the integration of moral values in economic activities. However, challenges are still quite significant, including the limited number of green projects to finance, the low level of public literacy towards the concept of green finance, and the lack of support in the form of policy incentives from the government, which should play a large role in accelerating implementation (Ahmed et al., 2024). Therefore, collaboration between the government, financial institutions, and the community is a key factor in expanding the application of green banking in the future.

3. Methods

This research uses a systematic literature review method designed to obtain a comprehensive understanding of the topic. The literature used as a reference consists of international and national journal articles, relevant regulatory reports, and various academic publications. The research process is carried out in stages so that the results of the analysis are not only descriptive but also provide a strong academic contribution.The initial stage of the research begins with the identification of literature by searching for sources in a number of credible academic databases, namely Google Scholar. This search is carried out using certain keywords relevant to the research focus, namely sustainable finance, green economy, ESG, green banking, and Islamic banking. Through this identification stage, researchers can obtain a number of initial literature that is considered potential to answer the research questions.

The next stage is literature selection, where relevant articles are chosen based on certain inclusion criteria. These criteria include a direct discussion of the relationship between sustainable finance and banking, publication, and the inclusion of the context of Islamic banking. With this selection, researchers ensure that the literature used is truly relevant, up-to-date, and in line with the research focus. Furthermore, the selected literature is analyzed through a content analysis approach to identify a number of main themes. These themes include the development of global trends in sustainable finance practices, the strategic role of banking in supporting the green economy agenda, the implementation of ESG in the financial sector, and the various challenges faced in the application of green banking, especially in the realm of Islamic banking. This content analysis helps researchers to construct a more systematic and structured framework of understanding regarding the phenomenon being studied.

The final stage of this research is the synthesis of findings, which is the compilation of information obtained from various literature into a comprehensive and integrated narrative to answer the research questions. This literature review method was chosen because it provides flexibility for researchers to understand the phenomenon broadly without being tied to a specific empirical context. In addition, the literature approach allows researchers to capture an overview of current research trends as well as identify existing research gaps, which can help direct the next research agenda (Ammar et al., 2023).

4. Results

The results of the literature review show that international sustainable finance trends have continued to experience very significant developments since 2020. After various global environmental, social, and health crises, many countries are increasingly aware that the financial system cannot operate with a conventional logic that only pursues profit, but must integrate the sustainable development agenda into their national financial systems. This transformation is clearly seen in policies and initiatives in various regions of the world. In Europe, for example, the European Union introduced the EU Taxonomy as a green financing standard that functions to provide clarity on which economic activities can be categorized as environmentally friendly. The EU Taxonomy is not only a regulatory instrument but also a guide for investors, regulators, and companies to formulate sustainability strategies. This standard encourages harmonization in green financing policies across member countries, thereby creating a more consistent and accountable financial ecosystem.

In the Asian region, similar dynamics are also taking place with high intensity. Japan, South Korea, and Indonesia are actively encouraging the development of green bonds and green sukuk instruments as a means of financing the energy transition towards a low-carbon economy. These instruments serve a dual purpose, namely as a source of capital for renewable energy projects and sustainable infrastructure as well as proof of Asian countries' commitment to supporting the global climate change mitigation agenda. These findings are in line with the study by Utomo et al. (2024) which confirms the significant growth of sustainable finance in the Islamic banking sector, especially through the use of Shariah-compliant financial instruments.

In Indonesia, the commitment to sustainable finance is increasingly evident through strategic policies launched by regulators. OJK published the Sustainable Finance Roadmap Phase II which focuses on three main aspects, namely strengthening the green financial ecosystem, increasing the literacy and capacity of human resources, and providing incentives for environmentally friendly projects that require financial support. This Roadmap is systematically directed to create an institutional framework that encourages synergy between the financial sector, business actors, and the community in order to accelerate the transition to a green economy. Financial institutions, especially banks and fintech, have a big role in promoting the sustainability of financial institutions through sustainable finance. Sustainable finance is a financing system that not only considers the economic aspect, but also the social and environmental impact of the business activities being financed (Ziolo et al., 2021).

In addition to the OJK, Bank Indonesia (BI) also has a very important role as a regulator of monetary policy, stability of the payment system, and a driver of banking innovation. BI's role becomes relevant because a stable monetary policy and payment system are the foundation for creating sustainable investment. For example, BI's support for the digitalization of the payment system encourages transaction efficiency, reduces energy consumption in physical banking activities, and strengthens the integration of green finance with the digital ecosystem. According to Harahap et al. (2022), this sustainable finance roadmap not only expands the scope of green policies but also encourages broader involvement from the Islamic banking sector which has an ethical financial basis in line with the principles of sustainability.

However, the implementation of green banking in Islamic banking faces several challenges. One of the main obstacles is the limited public understanding of the importance of the concept of green banking, so its adoption is slow. In addition, the high initial investment costs to implement environmentally friendly technology are an obstacle for some banks. Competition with conventional banks that have first applied green banking principles is also a challenge for Islamic banking, but on the other hand, Islamic banking already has a competitive advantage in this context, because Shariah principles from the outset emphasize financial practices based on ethics, transparency, justice, and sustainability. Basic values such as the prohibition of usury, gharar, and maisir act as a moral filter that prevents excessive exploitation, while providing direction so that finance truly provides social benefits. The concept of green banking in a Shariah context is realized through financing environmentally friendly projects, developing innovative products such as green sukuk, and using digital technology to reduce the carbon footprint in banking operations. Sharofiddin et al. (2024) emphasize that Islamic banking can even strengthen its role through synergy with the Corporate Social Responsibility (CSR) agenda, because social responsibility has become an integral part of Shariah principles.

Thus, the integration of green banking in Islamic banking is not just a business strategy, but a reflection of the consistency of Islamic values in responding to global challenges. Even though the opportunities are great, the results of the literature analysis also show that there are various serious challenges in the application of green banking in the Islamic banking sector. First, the limited number of green projects causes Islamic banks to have difficulty channeling financing in accordance with the principles of sustainability. Many available projects are still small-scale, while large-scale projects require significant capital and regulatory certainty guarantees. Second, the long-term investment risk of renewable energy projects often makes banks more cautious. Renewable energy projects require a long time to generate profits and require technology that is constantly updated, which creates a non-small financial risk. Third, the internal readiness of Islamic banking institutions is still not optimal. There are still limitations in green financial literacy, a lack of training for bank employees regarding green instruments, and limited human resources who have the competence to assess the risks of sustainable projects (Ahmed et al., 2024).

Apart from the challenges above, the aspect of accountability is also a concern. A study by Khaliq (2024) highlights the importance of green accounting as a supporting instrument in ensuring the transparency and accountability of bank financial reports. Green accounting is needed so that every financial institution can clearly show the extent of its contribution to achieving the Sustainable Development Goals (SDGs). Without the implementation of green accounting, it is difficult for stakeholders to assess the real impact of banking's green policies. Therefore, strengthening the environmentally friendly accounting system is one of the main requirements in boosting the credibility of the green financial sector.

Furthermore, a study by Pathan et al. (2022) shows that even though awareness of the importance of green finance in Islamic banking continues to grow, its application still faces resistance due to a lack of consistent policies at the national level. Many countries do not yet have a clear and comprehensive legal framework related to green finance, so Islamic banks often face regulatory uncertainty. This condition has an impact on the low interest of investors and financial institutions to channel funds to green instruments. This is also confirmed by Ammar et al. (2023) who found that the adoption of ESG in Islamic banks in the African region is still fragmented. This fragmentation occurs due to a lack of coordination between financial authorities and differences in national policy priorities. Thus, the results of this literature research generally conclude that there is a great opportunity for Islamic banking to become a pioneer of green banking at the global level. Shariah principles based on justice, ethics, and sustainability provide a strong moral foundation to support the global agenda of energy transition and the achievement of SDGs.

However, this opportunity can only be realized if there is consistent regulatory support, adequate policy incentives, and an increase in the internal capacity of banking institutions. Clear and stable regulations will reduce uncertainty, incentives will encourage banks to be more courageous in financing green projects, while good internal capacity will ensure that human resources and banking systems are ready to face risks as well as take advantage of sustainable financial opportunities. With a combination of these factors, Islamic banking can play a strategic role not only at the national level but also globally, in encouraging an inclusive and sustainable green financial transformation.

5. Discussion

This discussion highlights the complex dynamics between the great opportunities and real obstacles in the implementation of green banking in the Islamic banking sector. Theoretically, Shariah principles that emphasize justice, balance, sustainability, and the prohibition of activities that damage the environment have a close relationship with the concept of Environmental, Social, and Governance (ESG). Both of them emphasize the importance of ethics in transactions, maintaining environmental sustainability, and ensuring that economic activities provide real benefits to the wider community. Therefore, green banking can be seen as an extension and strengthening of the principles of Islamic finance which from the outset were indeed oriented towards public welfare and long-term social responsibility.

However, on a practical level, the application of green banking is not as simple as the theory suggests. The adoption of this concept requires deep institutional reform, both in terms of organizational structure, financing models, and corporate culture. The reality on the ground shows that many Islamic banks are still very focused on short-term profitability. This orientation often makes them reluctant to finance long-term projects that are considered to have high risk, such as renewable energy projects or green infrastructure. In fact, the success of green banking implementation is highly dependent on the courage of banks to finance such projects. Another no less important challenge is the limited green financing instruments that are truly in accordance with Shariah principles. Although innovations such as green sukuk have become one of the most promising breakthroughs (Utomo et al., 2024), the availability of other instruments is still very limited, so the bank's options in channeling green financing become relatively narrow.

On the other hand, the role of regulators is very strategic. The OJK Roadmap can be seen as a policy instrument that prepares the regulatory infrastructure, as well as provides clear direction for banks to start adopting ESG principles in their operational activities and financial products. However, the success of the implementation of the roadmap still depends heavily on collaboration and synergy between various actors, namely regulators, banking, investors, and the wider community. Without solid cooperation, there is a big risk that green banking will only stop at the level of jargon and rhetoric, without having a real impact on sustainability.

In terms of opportunities, increasing global awareness of environmental and social issues actually opens up an increasingly large space for the development of green financial products. This trend can increase the interest of investors, both domestic and international, to invest in financial products that are oriented towards sustainability. This condition also provides an opportunity for Islamic banking to expand its market share, increase its competitiveness, and strengthen its reputation in the eyes of the public. In addition, by integrating digital technology into operations, Islamic banks can reduce operational costs while reducing their carbon footprint. Digitalization not only increases efficiency but also becomes a concrete strategy in supporting the green agenda (Rahmaty, 2023).

Thus, this discussion confirms that although the challenges are still significant, the prospect of green banking in Islamic banking remains very bright. The main condition for this prospect to be realized is consistent regulatory support, adequate policy incentives from the government, and an increase in green financial literacy and institutional capacity in the Islamic banking sector. If these three aspects can run in tandem, then green banking will not only be jargon, but will truly become an instrument of Islamic financial transformation towards sustainability.

6. Conclusion

This literature review confirms that the integration of sustainable finance, the green economy, and ESG in Islamic banking is a strategic step to promote sustainable development. Green banking emerges as a relevant concept that is in line with Shariah principles, prioritizing ethics, justice, and sustainability. However, its implementation still faces various challenges, ranging from the limited number of green projects, long-term investment risks, to low green financial literacy among Islamic banking practitioners. The role of regulators such as the OJK and BI is crucial to provide a supporting policy framework, including roadmaps and incentives that encourage banks' participation in sustainable projects.

Nevertheless, the opportunities for green banking are very large. Global demand for green financial instruments, such as green sukuk and green bonds, continues to increase. With the synergy between regulators, financial institutions, and investors, Islamic banking can become a driver of the transition to a green economy.Therefore, multi-stakeholder collaboration is needed to ensure that green banking is not just rhetoric, but truly provides a real contribution to the achievement of the Sustainable Development Goals (SDGs) and national climate commitments.

References

Ahmed, U., Maruf, A., Alam, S., & Azizah, L. (2024). The role of Islamic finance in sustainable and green transition. *Suhuf*, *36*(2), 118-139.

Ammar, R., Rebai, S., & Saidane, D. (2023). Toward the development of an Islamic banking sustainability performance index. *International Journal of Islamic and Middle Eastern Finance and Management*, *16*(4), 734-755.

Bukhari, S. A. A., Hashim, F., Amran, A. B., & Hyder, K. (2020). Green banking and Islam: two sides of the same coin. *Journal of Islamic Marketing*, *11*(4), 977-1000.

Harahap, D., Uula, M. M., & Nasution, A. A. (2022). Environmental, social, governance (ESG) and Islamic finance: A review.1(1), 1-12.

Khaliq, A. (2024). The Role of Green Accounting in Islamic Finance: Opportunities and Challenges in the Era of ESG. In *IECON: International Economics and Business Conference* (Vol. 2, No. 2, pp. 887-907).

Musa, M. (2023). Integration between ESG Goals and Value-Based Intermediation Approach within the Paradigm of Islamic Finance. *Islamic Banking and Finance Review*, *10*(2), 31-54.

Pathan, M. S. K., Ahmed, M., & Khoso, A. A. (2022). Islamic banking under vision of green finance: The case of development, ecosystem and prospects. *International Research Journal of Management and Social Sciences*, *3*(1), 193-210.

Rahmaty, M. (2023). Advancing Sustainable Banking: Innovative Strategies for Green Finance and Ethical Growth. *Journal of Industrial and Systems Engineering*, *15*(4), 170-177.

Sharofiddin, A., Al-Shaghdari, F. M. O., Zakariyah, H., & Habibullah, M. (2024). Islamic banking towards sustainable green finance and corporate social responsibility. In *Islamic Green Finance* (pp. 16-23). Routledge.

Utomo, B. B., Sudarmanto, E., & Muhammadong, M. (2024). The Growth of Green and Sustainable Finance in Islamic Banking: A Bibliometric Approach. *Sciences du Nord Economics and Business*, *1*(02), 47-55.

Ziolo, M., Bak, I., & Cheba, K. (2021). The role of sustainable finance in achieving sustainable development goals: Does it work?. *Technological and Economic Development of Economy*, *27*(1), 45-70.