**Comparative Effectiveness of Carbon Emission Management in Islamic Green Banking: Evidence from Malaysia and Saudi Arabia**

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**ABSTRACT:** *This study explored carbon emission management in Islamic green banking by comparing major Islamic banks in Malaysia and Saudi Arabia, motivated by the need to align Sharia-based finance with global environmental objectives. The research reviewed the 2023 financial and sustainability reports of six leading Islamic banks, employing a qualitative comparative method. Environmental, social, and governance (ESG) principles were examined to assess how regulations, Sharia law, and operational strategies address carbon reduction. The findings indicate that Malaysian banks prioritize regulatory compliance, deep ESG integration, and detailed reporting, including the measurement of Scope 1, 2, and 3 emissions, supported by national initiatives such as Value-Based Intermediation. Saudi banks focus more on financing large-scale national renewable projects under Vision 2030 and infrastructure investment, but have less extensive sustainability reporting. Both models reflect the adaptation of Sharia principles toward environmental targets; however, national regulation, institutional priorities, and reporting standards shape differing outcomes. Significant challenges include the limited availability of international Sharia-compliant sustainability standards and gaps in ESG application capabilities, particularly for Scope 3 data. This study offers a new comparative perspective on the effectiveness of Islamic green banking, highlighting the challenges and opportunities for cross-country harmonisation. However, its focus on two countries and the potential for incomplete bank disclosures may limit its findings.*

Penelitian ini mengeksplorasi pengelolaan emisi karbon dalam praktik perbankan hijau syariah dengan membandingkan bank-bank utama di Malaysia dan Arab Saudi, dilatarbelakangi kebutuhan untuk menyelaraskan keuangan berbasis syariah dengan tujuan lingkungan global. Studi ini menganalisis laporan keuangan dan keberlanjutan tahun 2023 dari enam bank syariah terkemuka dengan metode komparatif kualitatif. Prinsip lingkungan, sosial, dan tata kelola (environmental, social, and governance/ESG) dikaji untuk menilai bagaimana regulasi, hukum syariah, dan strategi operasional menjawab pengurangan karbon. Hasilnya menunjukkan bank di Malaysia mengedepankan kepatuhan regulasi, integrasi ESG yang mendalam, dan pelaporan rinci termasuk pengukuran emisi Scope 1, 2, dan 3 melalui inisiatif nasional seperti Value-Based Intermediation. Bank-bank Arab Saudi lebih banyak membiayai proyek energi terbarukan skala nasional melalui visi 2030 dan investasi infrastruktur, namun pelaporan keberlanjutannya masih terbatas. Kedua pendekatan mencerminkan adaptasi prinsip syariah pada target lingkungan, namun peraturan nasional, prioritas institusi, dan standar pelaporan menghasilkan perbedaan. Tantangan utama meliputi keterbatasan standar keberlanjutan berbasis syariah internasional dan kesenjangan dalam penerapan ESG, terutama data Scope 3. Studi ini memberikan perspektif komparatif baru tentang efektivitas green banking syariah, menyoroti peluang harmonisasi antarnegara, dengan keterbatasan pada dua negara dengan pangsa pasar perbankan Islam terbesar saja.

**Keywords:** *Islamic Green Banking, Carbon Emission Management, Environmental, Social, and Governance (ESG), Malaysia, Saudi Arabia*

1. **INTRODUCTION**

The urgent threat of climate change has made reducing carbon emissions a critical global priority, driving reform across all financial sectors (Ahmed et al., 2024; Ariani et al., 2023). In recent years, banks have assumed a central role in financing and incentivizing the transition to low-carbon economies, not only through direct investments in renewable energy but also by aligning their lending portfolios with environmental targets. While the global banking sector is increasingly adopting environmental, social, and governance (ESG) frameworks to guide decision making and reporting, there remains considerable debate regarding the effectiveness and contextual appropriateness of these approaches for Islamic financial institutions, which operate within distinct legal and ethical frameworks rooted in Sharia law. Awareness and literacy of environmental sustainability are also being promoted and receiving attention from academics and policymakers (Sari et al., 2024; Suranto et al., 2015).

The issue of climate change and increasing carbon emissions has become a global concern, encouraging various sectors, including the banking sector, to adopt environmentally friendly practices (Ardiansyah & Fasa, 2025; Idrus & Nur, 2024). In this case, Islamic green banking emerged as one of the innovative approaches that combines sharia principles with a commitment to environmental sustainability (Fitriani & Sisdianto, 2025). Islamic green banking not only emphasizes the ethical financial aspect but also encourages financing of green projects, such as renewable energy and energy efficiency, to support sustainable development agendas in Muslim-majority countries (Alam et al., 2025; Fageh, 2022; Issa et al., 2022; Rahman et al., 2025).

Malaysia and Saudi Arabia are two member countries of the Organisation of Islamic Cooperation (OIC) that have rapidly growing Islamic banking systems and are pioneers in the application of green banking principles (Setiawati & Salsabila, 2023). Additionally, Malaysia and Saudi Arabia are among the three largest countries with the largest share of the Islamic banking market (OJK, 2023). Malaysia is known as a pioneer in the issuance of green sukuk to fund green projects. At the same time, Saudi Arabia continues to strengthen Islamic banking regulations and initiatives that support the transition to a low-carbon economy (Hameed et al., 2022; Irfany et al., 2024).

Several studies have shown that the development of the Islamic finance sector can have a positive impact on reducing carbon emissions, mainly through financing sustainable projects and investing in renewable energy (Setiawati & Salsabila, 2023). However, field data also indicate that Islamic banking financing in general is not fully focused on the green sector, so its contribution to reducing carbon emissions remains limited (Irfany et al., 2024). This condition underscores the need for stricter policies and special incentives to enable Islamic banking to play a more effective role in addressing environmental issues (Fahmi, 2025; Weber, 2016).

Research on carbon emission management in the Islamic banking system remains relatively limited, particularly in a comparative perspective between countries. Some previous studies have placed more emphasis on macroeconomic policy aspects or the sustainability of financial institutions in general (Abdullah & Mustafa, 2024); however, few have examined how Islamic banking institutions specifically formulate and implement carbon management policies. Therefore, this study is important in filling the literature gap, particularly by highlighting the approaches, strategies, and challenges faced by Islamic banks in Saudi Arabia and Malaysia in managing carbon emissions as part of their sustainability commitments.

Most existing research on Islamic finance and sustainability has focused on macroeconomic impact or broad institutional trends, with few studies investigating the internal dynamics of carbon management or comparing policy implementation and regulatory adaptation across countries (Abdullah & Mustafa, 2024; Sharmeen & Yeaman, 2020). This condition leaves a notable gap regarding how Islamic banking institutions in different regions interpret and operationalize both Sharia principles and ESG standards in the practical management of carbon emissions—a gap this study directly addresses.

This research examines how leading Islamic banks in Malaysia and Saudi Arabia—two countries that represent both Muslim-majority contexts and innovation hubs—manage carbon emissions in practice, considering their regulatory frameworks, institutional priorities, and national sustainability agendas. The study analyses 2023 financial and sustainability disclosures from key banks in both countries using a qualitative comparative method, focusing on how environmental, social, and governance practices are integrated alongside Sharia-based mandates in carbon emission management strategies.

This study aims to conduct a comparative study related to the management of carbon emissions in Islamic green banking practices between Malaysia and Saudi Arabia by analyzing the 2023 financial statements of several major Islamic banks in both countries, namely Hong Leong Bank Berhad, Bank Islam Malaysia Berhad, RHB Malaysia for Malaysia, and Al Jazira Bank, Al Rajhi Bank, and Alinma Bank for Saudi Arabia. By comparing the strategies, policies, and performance of carbon emission management in these banks, it is hoped that this study can provide an empirical overview of the effectiveness and challenges of implementing Islamic green banking in the OIC region, as well as policy recommendations to strengthen the role of Islamic banking in supporting the transition to a green economy.

The novelty of this research lies in its cross-country comparative analysis, which extends beyond the existing literature to critically assess not only policy but also the practical implementation of carbon management in Islamic banking. To date, few studies have comparatively examined how Islamic banks in leading OIC economies operationalize climate commitments in light of both local regulations and universal Islamic ethics. Through this approach, the research aims to fill a critical knowledge gap and provide actionable insights for policymakers and practitioners seeking to improve the effectiveness of Islamic green banking in advancing global and national climate goals.

1. **METHOD**

This study uses a qualitative approach with the Qualitative Comparative Analysis (QCA) method to examine the management of carbon emissions in Islamic green banking practices in the six largest Islamic banks in Malaysia and Saudi Arabia, namely Hong Leong Bank Berhad, Bank Islam Malaysia Berhad, RHB Malaysia, Al Jazira Bank, Al Rajhi Bank, and Alinma Bank. The selection of these six banks is based on the fact that all of them exclusively carry out Islamic green banking operations. Additionally, Malaysia and Saudi Arabia were selected because they are among the three countries with the largest share of the Islamic banking market worldwide. Therefore, a comparison between these two countries can provide a representative and relevant picture of Islamic green banking practices in a region with rapid Sharia development.

This study will analyze the 2023 sustainability reports of six Islamic banks, comprising three Islamic banks in Malaysia and three Islamic banks in Saudi Arabia. Among them are the following tables:

**Table 1. Country Name and Name of Bank**

|  |  |  |  |
| --- | --- | --- | --- |
| Bank Name | Country | Bank Name | Country |
| Bank Islam Malaysia Berhad | Malaysia | Al Rajhi Bank | Saudi Arabia |
| Hong Leong Bank Berhad | Malaysia | Alinma Bank | Saudi Arabia |
| Rashid Hussein Bank Berhad | Malaysia | Bank Al Jazira | Saudi Arabia |

The research data is taken from annual financial statements, sustainability reports, and official information published on each bank's website for the 2023 period. The use of these data sources aligns with the principle of triangulation, as recommended by Yin (2017), to enhance the validity and reliability of qualitative research. Data analysis is carried out using content analysis methods that have proven effective in research related to environmental and social disclosures in company reports. The analysis process includes data collection, development of green banking indicators, comparative analysis using QCA, and interpretation of results.

The indicators developed in this study include environmentally friendly financing policies, environmental risk disclosure, carbon emission reduction initiatives, energy and water conservation programs, and waste and recycling management. This indicator framework refers to the standards and guidelines proposed by Weber (2012) in his study on green banking, which cover important aspects relevant to sustainability practices in the Islamic banking sector. The results of the study are presented in a comparative descriptive manner that explains the similarities and differences in environmental conservation activities between Islamic banks in Malaysia and Saudi Arabia, as well as identifying the factors influencing these differences, such as national regulations, bank size, and business strategies (Sharmeen & Yeaman, 2020).

This study aims to provide an in-depth understanding of green banking practices in Islamic banks in the two countries, as well as identify factors that Influence variations in environmental conservation activities. The results of the research are expected to make a significant contribution to the Islamic finance literature and environmental sustainability in the banking sector, as well as provide practical implications for policymakers and Islamic banking industry players in improving the effectiveness of carbon emission management and the development of Islamic green banking more broadly (Fahmi, 2025).

1. **RESULTS**

This study aims to comparatively examine the implementation of carbon emission management in Islamic Green Banking practices between three major Islamic banks in Malaysia—Hong Leong Bank Berhad (HLB), Bank Islam Malaysia Berhad (BIMB), and RHB Bank Malaysia—with three banks in Saudi Arabia—Al Jazira Bank, Al Rajhi Bank, and Alinma Bank. The primary focus lies on sustainability policies, the application of sharia principles in green financing, as well as operational carbon emission mitigation strategies and financing (Scope 1, 2, and 3).

The results of analyzing the 2023 sustainability reports from six Islamic banks reveal significant differences in approaches between banks in Malaysia and Saudi Arabia in managing carbon emissions within the framework of Islamic Green Banking. In Malaysia, banks such as Hong Leong Bank Berhad, Bank Islam Malaysia Berhad, and RHB Bank implement strategies focused on operational efficiency and adherence to national regulatory frameworks. All three place the aspect of emission management as an integral part of the sustainability strategy and sharia values. They are progressively adopting ESG reporting standards, including calculations of Scope 1, 2, and 3 carbon emissions.

Hong Leong Bank, for example, achieved operational emissions reductions faster than national targets through an energy conservation program that included retrofitting LED lighting, improving air conditioning efficiency, and installing solar panels at several key properties. Additionally, HLB is a pioneer in financing emissions reporting (Scope 3) by participating in international initiatives such as the Partnership for Carbon Accounting Financials (PCAF). Bank Islam Malaysia, on the other hand, strengthened its position as a pioneer by leading the development of the Value-Based Intermediation Assessment Framework (VBIAF) and implementing a digital carbon monitoring system through automated dashboards and a participatory community-based approach. RHB Bank is also actively involved in distributing green financing, particularly in the green transportation and green housing sectors, and has explicitly targeted operational carbon neutrality by 2030.

Meanwhile, in Saudi Arabia, banks such as Al Rajhi Bank, Alinma Bank, and Al Jazira Bank are focusing more on financing large-scale green projects as part of the national strategy towards Vision 2030. Al Rajhi Bank is actively financing various renewable energy projects, including Sudair Solar PV, the Helios Green Hydrogen Project, and Jubail 3A Water Desalination, as well as issuing USD 1 billion worth of green sukuk to support the funding. The bank also implements various energy efficiency initiatives in its headquarters environment, including the installation of energy-efficient cooling systems, the utilization of solar power, and the implementation of an intelligent building management system (BMS). Alinma Bank has not only developed carbon emission calculation methodologies for Scope 1, 2, and 3, but also for Scope 4. However, it has also installed solar panels in more than 50 branches and initiated an internal environmental policy based on ISO 14001. Al Jazira Bank has shown an initial commitment to sustainability, although it is not as comprehensive as the other two banks in terms of data reporting and emissions policy.

This analysis reveals that Malaysia's approach is more structured, incorporating ESG into its overall business processes through regulation. In contrast, Saudi Arabia's approach tends to be strategic and macro, focusing on large-scale impact through national project financing that aligns with the energy transition. Although they have different approaches, both reflect the compatibility of sharia values with environmental sustainability. These results also demonstrate how Islamic Green Banking can adapt to its respective national contexts without compromising its fundamental principles, namely justice, sustainability, and social responsibility.

**Table 2. Strategic Comparison of Malaysia vs Saudi Arabia**

|  |  |  |
| --- | --- | --- |
| **Aspects** | **Malaysia** | **Saudi Arabia** |
| Emissions Focus | Reduction of Scope 1, 2, and 3 (financed emissions) | Scope 1 and 2 reductions; Focus on renewable energy projects |
| Regulatory Framework | CCPT, TCFD, VBIAF, PCAF | Saudi Exchange ESG Guidelines, Vision 2030 |
| Green Infrastructure | Digitization of branches, Smart AC, solar rooftops | Large solar panel installation, national building retrofit |
| Green Financing | SME and EV focus | Focus on GW-scale energy projects |
| Issuance of Green Instruments | Green Tier-1 Capital Securities (HLB) | Green Sukuk (Al Rajhi) |
| Scope 3 Calculation | Active done | Still growing |

These findings suggest that, although the two countries have robust Islamic banking systems, their approaches to managing carbon emissions differ. Malaysian banks are more focused on regulatory frameworks, MSME financing, and internal efficiency. In contrast, Saudi Arabian banks are more aggressive in investing in major sustainable projects as part of a national strategy towards achieving Net Zero. This finding reflects a local adaptation of Islamic principles to sustainability, with the potential for future cross-border strategic collaboration.

1. **DISCUSSION**

**Figure 1. Summary of Comparative Discussion**

**Integration of Sharia Principles and Sustainability Goals**

This study demonstrates that the integration of Sharia principles into green banking practices in both countries is occurring actively, albeit with varying approaches. In Islamic Green Banking Theory, the principles of maslahah (benefit), amanah (trust), and khalifah (ecological responsibility) provide the spiritual and ethical foundation for encouraging banking to mitigate negative ecological and social impacts (Rahman et al., 2025).

Banks in Malaysia, particularly Bank Islam and Hong Leong Bank, emphasize Bank Negara Malaysia's systemic and holistic approach based on the Value-Based Intermediation (VBI) and Climate Change and Principle-based Taxonomy (CCPT) frameworks. This phenomenon supports the integration of Sharia values and the Sustainable Development Goals (SDGs), particularly SDG 13 on Climate Action (Idrus & Nur, 2024).

Meanwhile, banks in Saudi Arabia, notably Al Rajhi and Alinma Bank, are demonstrating a strategic approach focused on financing large-scale renewable energy projects. This condition aligns with the macroeconomic policies of Saudi Vision 2030 and the Saudi Green Initiative, which encourage the financial sector to play a key role in the transition to a low-carbon economy (Hameed et al., 2022).

**Emissions Management Strategies: A Comparison of Malaysia and Saudi Arabia**

The strategies employed by Islamic banks in Malaysia and Saudi Arabia for managing carbon emissions reflect distinct institutional orientations and regulatory landscapes, as supported by recent international research.

Malaysian Islamic banks predominantly employ structured, framework-driven strategies to integrate environmental responsibility into their operations. The adoption of national guidelines—such as the Climate Change and Principle-based Taxonomy (CCPT), Value-Based Intermediation (VBI), and the Task Force on Climate-related Financial Disclosures (TCFD)—enables these banks to systematize environmental, social, and governance (ESG) standards into credit evaluation, risk management, and reporting mechanisms (Liu & Lai, 2021; Rastam Shahrom & Sherin Kunhibava, 2023). This focus on measurement and disclosure is strongly influenced by collaborative policymaking between regulators and the banking sector, which has been shown to enhance the uptake of sustainability frameworks and the quality of social and environmental disclosures (Amirul Haqeem Bin Abd Ghani, 2023; Jaafar & Brightman, 2022).

Empirical studies suggest that Malaysian Islamic banks' emphasis on rigorous ESG internalisation fosters broader financial behaviour change, encourages sustainable lending practices, and drives innovation in green products, such as green sukuk (Alam et al., 2023). Furthermore, active engagement in transparent ESG and sustainability reporting is linked to governance quality and regulatory expectations, resulting in an environment where religious, environmental, and business imperatives mutually reinforce one another (Yusoff et al., 2018). Recent findings also highlight that the integration of Shari'ah principles with sustainability goals is reflected in frameworks like the Shari’ah Governance Practices Index (SGPi) and sustainability-linked banking performance evaluations (Jan et al., 2021).

In contrast, Islamic banks in Saudi Arabia prioritize large-scale, project-based interventions, aligning closely with national ambitions articulated in Saudi Vision 2030. These strategies leverage substantial capital investment in renewable energy and infrastructure projects, positioning banks as key agents in national low-carbon development programs (Alatassi & Pillai, 2022; Saddam et al., 2024). Research shows that state-driven frameworks and collaboration with sovereign stakeholders encourage banks to allocate resources directly to high-impact projects, such as solar farms, water desalination, and significant investments in green hydrogen.

Saudi banks’ macro approach is less focused on comprehensive sustainability reporting or granular ESG integration, but rather on fulfilling their catalytic role in advancing the energy transition and achieving national climate targets. This condition complements findings from comparative research, which suggest that top-down policy alignment and board-level governance structures—often integrating Shari’ah supervisory boards—enhance banks' capacity to balance risk, compliance, and the pursuit of strategic environmental outcomes (Nilasakti & Falikhatun, 2020).

International comparative analyses underscore that while Malaysian Islamic banks rely on robust frameworks and disclosure practices to advance ESG goals, Saudi banks' effectiveness lies in their ability to mobilise significant resources for flagship projects that support ambitious policy objectives. Both approaches reflect unique adaptations to national context and regulatory ethos, but share a commitment to integrating Sharia principles with climate responsibility.

Key literature also notes that, despite progress, challenges persist in both countries, particularly in standardising ESG processes, capturing indirect emissions (Scope 3), and scaling up green finance models. Nonetheless, these varied strategies together contribute to a more holistic understanding of how Islamic banks in different jurisdictions can operationalize their religious and environmental mandates in support of global decarbonization.

**Evaluation of the Effectiveness of Carbon Emission Management**

The effectiveness of carbon emission management in Islamic green banking can be assessed by the banks’ ability to reduce Scope 1 and Scope 2 emissions, as well as their progress in disclosing and managing Scope 3 emissions, which encompass indirect emissions resulting from their lending and investment activities (Bukhari et al., 2020). In Malaysia, Islamic banks such as Hong Leong Bank and RHB have set benchmarks in the region by not only curbing their operational emissions but also initiating the complex process of calculating financing-related emissions. This practice aligns Malaysia's Islamic banking sector with leading global sustainability standards, demonstrating enhanced transparency that often exceeds the average disclosure quality found in the region (Rahim et al., 2024).

Saudi Arabian Islamic banks, in comparison, have made considerable progress by implementing tangible operational enhancements such as green-certified buildings, extensive energy-efficient cooling technologies, and investments in renewable energy infrastructure for their branches (Alqahtani & Mayes, 2018). Although they have yet to achieve comprehensive Scope 3 emissions tracking and reporting, their operational focus has resulted in meaningful emission reductions and noticeable improvements in energy utilisation. However, research finds that limited integration of advanced ESG reporting frameworks in Saudi banking has resulted in less transparency compared to Malaysia (N. A. I. N. Abdullah & Haron, 2022)

The external impact of carbon management effectiveness is also measured by how banks support broader national and global emission reduction goals (Tang & Luo, 2014). Saudi Arabia's financing of large-scale renewable energy projects, as prioritized by Saudi Vision 2030, produces systemic change and accelerates the country's national transition to a low-carbon economy. Contrastingly, Malaysia's strategy of engaging micro, small, and medium-sized enterprises (MSMEs) as well as retail banking clients promotes a more inclusive and grassroots adoption of sustainable practices, facilitating cultural shifts toward greener financial behaviours (Daeli, 2024).

Studies consistently find that both approaches—macro-level intervention in Saudi Arabia and micro-level engagement in Malaysia—demonstrate effectiveness within their respective contexts, yet face unique challenges. Major obstacles include data availability, harmonization of reporting standards, and scaling up Scope 3 calculations, especially when customer data is required (Stenzel & Waichman, 2023). Continued regulatory refinement and cross-country learning will be crucial to enhancing the overall impact of emission reduction in Islamic green banking.

**Challenges and Opportunities in the Implementation of Islamic Green Banking**

Islamic green banking in Malaysia and Saudi Arabia continues to face significant structural and technical obstacles. Among the most pressing issues is the lack of globally harmonized sustainability standards that integrate Sharia principles with widely recognized frameworks, such as the Global Reporting Initiative (GRI) or the Task Force on Climate-related Financial Disclosures (TCFD). As a result, Islamic banks often differ in how they measure and report sustainability outcomes, particularly in terms of carbon emissions, leading to inconsistencies and difficulties in benchmarking progress across institutions and regions (Bimantara et al., 2025; Qureshi & Hussain, 2022). Furthermore, limited awareness, insufficient regulatory clarity, and variable legal support exacerbate these disparities, as highlighted by comparative studies between Islamic and conventional banks (Seyed-Javadin et al., 2014).

Another critical challenge involves human resources and technical expertise. Many Islamic banks, especially those outside developed markets, lack dedicated sustainability units and sufficient staff trained in Environmental, Social, and Governance (ESG) integration. This shortfall is also evident across Southeast Asia and the Middle East (Melisa Putri & Muhammad Iqbal Fasa, 2025). The complexity of collecting reliable Scope 3 data, particularly from MSMEs and the informal sector, limits the ability of Islamic banks to comprehensively report their environmental impact and fully comply with evolving international requirements (Raimi et al., 2024). Additional barriers, including limited technological adoption, high implementation costs, and insufficient green incentives, also hinder the mainstreaming of green banking practices in Islamic finance (Aisah et al., 2024; Elfa Duwina & Muhammad Iqbal Fasa, 2024).

Despite these challenges, substantial emerging opportunities exist. Cross-border collaboration presents an opportunity for Malaysia and Saudi Arabia to jointly develop Islamic ESG standards, with the potential for wider international adoption and convergence (Khan & Tabet, 2024). Digital transformation and fintech innovations are supporting the real-time, transparent monitoring of environmental finance impacts—carbon dashboards, green scoring systems, and blockchain-based tracking are examples with particular promise for adaptive governance and operational efficiency (Widiastuti et al., 2022). The rising global demand for sustainable financial products positions Islamic banking to lead the sector's ethical and sustainable transition, particularly given the synergy between Sharia values and broader sustainability goals.

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1. **CONCLUSION**

Based on a literature analysis and comparative regulatory review of six major Islamic banks in Malaysia and Saudi Arabia, this study demonstrates that Islamic green banking can play a pivotal role in the global low-carbon transition, provided it is contextually adapted and underpinned by sound policy frameworks. Malaysian banks have demonstrated a higher integration of environmental, social, and governance (ESG) standards, aligning with international benchmarks and regulatory initiatives, such as Value-Based Intermediation. This focus includes comprehensive reporting of Scope 1, 2, and 3 emissions, as well as micro-level engagement with small and medium-sized enterprises. In contrast, Saudi Arabian banks align their practices with national strategies, prioritizing large-scale project financing and investment in renewable infrastructure to deliver systemic climate impact. However, their ESG reporting and transparency remain less developed. These findings are the result of a qualitative comparative analysis of sustainability reports and regulatory contexts. They highlight that while shared Sharia principles provide a common ethical foundation, differing national policies, institutional capacities, and reporting standards shape country-specific approaches to managing carbon emissions. The absence of unified international standards integrating Sharia and global ESG criteria, as well as limited capacity—particularly in Scope 3 data collection—are notable challenges across both contexts. In light of these results, policy action is urgently needed. Regulators should promote cross-border collaboration to harmonise Sharia-compliant ESG standards and reporting frameworks. The halal industry can significantly boost its credibility and impact by adopting transparent, standardized environmental assessment tools. Innovations such as fintech-driven real-time carbon tracking offer clear opportunities for improving both compliance and accountability. By leveraging their unique values and regulatory environments, Islamic banks can become true pioneers in ethical, climate-resilient finance, making this field not only relevant for Muslim-majority countries but also for global sustainability efforts.

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