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# INTEGRATING ESG PRINCIPLES INTO ISLAMIC BANKING DIGITALIZATION TO STRENGTHEN SUSTAINABLE FINANCIAL LITERACY

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**ABSTRACT**

This study aims to analyze how the integration of Environmental, Social, and Governance (ESG) principles in Islamic banking serves as a mechanism for strengthening sustainable financial literacy through the use of Sharia-based digital financial services in the Kerang Krajan community. This study uses a descriptive qualitative approach with a literature review method supported by an analysis of the implementation of Sharia-compliant digital financial services. Data were obtained from scientific articles, official reports, regulations related to ESG and Islamic banking, and documentation of digital service implementation. Data were then analyzed thematically through data reduction, data presentation, and conclusion drawing. The results show that ESG integration supports the improvement of sustainable financial literacy through environmental, social, and governance dimensions. In the environmental dimension, the digitalization of financial services contributes to resource efficiency through reduced paper use. In the social dimension, the implementation of digital services increases public understanding of responsible financial management, business ethics, and the values of the maqashid of Sharia. Meanwhile, in the governance dimension, the integration of digital systems with Islamic banking strengthens transparency, accountability, and compliance with Sharia principles. These findings indicate that ESG integration plays a role in supporting the strengthening of sustainable financial literacy through innovation in Islamic banking digital services and provides input for the development of more transparent, accountable, and sustainability-oriented financial service strategies.

## 1. INTRODUCTION

Digital transformation in the financial sector has transformed the way people access and utilize banking services, including in the Islamic banking industry. Furthermore, increasing attention to sustainability issues is encouraging financial institutions to integrate Environmental, Social, and Governance (ESG) principles into their business strategies and digital services. ESG integration is no longer viewed solely as a corporate governance standard, but also as an approach capable of supporting the creation of a sustainable, inclusive, and responsible financial system. In the context of Islamic banking, ESG principles align with the maqasid of sharia, which emphasizes the protection of human welfare, social justice, environmental responsibility, and trustworthy governance (Aziz et al., 2024). Therefore, the digitalization of Islamic banking presents a crucial opportunity to integrate ESG values as part of strengthening sustainable finance while simultaneously improving Sharia-compliant financial literacy (Raimi & Bamiro, 2025).

From an environmental perspective, the digitization of Islamic banking services through various digital financial applications, such as BYOND, contributes to efficient resource use by reducing reliance on paper-based documents and encouraging more environmentally friendly transactions (Tlemsani et al., 2025). From a social perspective, digital services provide easy access to financial information, enabling the public to improve their understanding of responsible financial management, Islamic business ethics, and the importance of sustainability-oriented financial decision-making (Osman & Elamin, 2023; Alsaghir, 2023). Meanwhile, from a governance perspective, the use of digital technology enables increased transparency, accountability, transaction security, and compliance with Sharia principles, thereby strengthening public trust in Islamic banking institutions (US & Jannah, 2024). However, public literacy regarding the link between ESG, the digitalization of Islamic banking, and sustainable finance remains

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relatively low, necessitating the strengthening of financial education integrated with Sharia values (Nurillayev, 2024).

Several previous studies have examined the relationship between ESG and Islamic banking performance, the implementation of the maqasid sharia (Islamic principles) in financial institution governance, and the impact of digitalization on improving banking services. Other studies have also addressed Islamic financial literacy and ESG implementation separately. However, most of these studies have focused on financial performance, regulatory compliance, or digital technology implementation without explaining how ESG integration in Islamic banking digitalization can serve as a mechanism for strengthening Sharia-based sustainable financial literacy. Thus, a research gap remains regarding the interconnectedness of ESG principles, the digital transformation of Islamic banking, the maqasid sharia, and sustainable financial literacy within a unified conceptual framework.

Based on this gap, this study aims to analyze the integration of ESG principles in Islamic banking digitalization as a mechanism for strengthening Sharia-based sustainable financial literacy. The novelty of this research lies in developing a perspective that simultaneously connects four aspects: ESG principles, the digitalization of Islamic banking services, the maqasid sharia, and sustainable financial literacy. Unlike previous research that addressed each aspect in isolation, this study offers a conceptual framework explaining how the digitalization of Islamic banking services can serve as a medium for ESG implementation and a means of sustainable financial education aligned with the values of the maqasid sharia. The findings of this study are expected to provide theoretical contributions to the development of ESG studies in Islamic banking and provide practical input for banking institutions in designing digital service innovations that are transparent, accountable, sustainable, and oriented toward improving public financial literacy.

## 2. METHODS

This study uses a qualitative approach with a descriptive analytical approach that combines literature and field studies to analyze the integration of Environmental, Social, and Governance (ESG) principles in the digitalization of Islamic banking as an effort to strengthen sustainable financial literacy. The literature study was conducted by searching for scientific articles, books, official reports, and regulations related to ESG, Islamic banking, digitalization of financial services, maqashid sharia, and Sharia-based financial literacy. Literature was selected based on inclusion criteria, namely publications published in the 2020–2025 period, originating from reputable scientific journals or official documents, and having direct relevance to the research focus. While exclusion criteria included publications that did not undergo a peer-review process, were irrelevant to the research topic, or contained incomplete information.

The field study was conducted on Bank Syariah Indonesia (BSI) customers in Kerang Krajan Village who had used the BYOND application as a Sharia-based digital banking service. The location was selected based on the high utilization of BSI digital services in the area, making it relevant to examine the implementation of ESG principles in Islamic banking practices. Data collection was conducted through semi-structured interviews with BYOND users and Bank Syariah Indonesia, observations of BYOND application usage in daily financial transactions, and documentation in the form of reports, policies, and other supporting documents. The implementation of the BYOND application was analyzed by identifying the application of environmental, social, and governance aspects in digital services and their relationship to increasing Sharia-based financial literacy. All data were analyzed using thematic analysis through the stages of data reduction, data presentation, and drawing conclusions to obtain an overview of the role of ESG integration in supporting sustainable financial literacy.

**Table 1. Characteristics of Research Informants**

| Informant | Code | Amount |
|---|---|---|
| Employee | AB-01 | 2 |
| Public | AB-02 | 2 |

Data analysis was conducted in three stages: data reduction to filter information according to the research focus, data display through narratives and tables to facilitate understanding of relationships, and drawing conclusions that were repeatedly verified to ensure the validity of the findings. This method allows the research to produce a comprehensive picture of ESG integration in Islamic banking while contributing to strengthening Sharia-based sustainable financial literacy.

## 3. RESULTS AND DISCUSSIONS

### Results

Research results indicate that Environmental, Social, and Governance (ESG) principles have begun to be implemented in Bank Syariah Indonesia's digital services through the BYOND application. Based on interviews with Bank Syariah Indonesia and customers in Kerang Krajan Village, the BYOND application not only facilitates digital transactions but also supports the implementation of sustainability principles through Sharia financial features, such as ZISWAF services, e-Gold, and a transparent transaction recording system. This implementation demonstrates that the digitalization of Islamic banking is beginning to integrate environmental, social, and governance aspects as part of improving the quality of financial services.

From the environmental dimension, the use of the BYOND application contributes to resource efficiency by reducing the use of paper-based documents and enabling transactions to be conducted online. This supports more environmentally friendly financial practices while also introducing the public to the importance of sustainability in economic activities. From the social dimension, Sharia-based digital services provide easy access to financial information, thereby increasing public understanding of responsible financial management, transparency, and social values through available Sharia features.

In terms of governance, the BYOND application provides an accurate, transparent, and easily monitored transaction recording system, thereby enhancing accountability in financial management. Real-time transaction information facilitates customer monitoring, planning, and financial decision-making. Furthermore, the integration of digital services with the Islamic banking system strengthens compliance with Sharia principles, thereby increasing public trust in Islamic banking services.

The findings of this study indicate that ESG integration in the digitalization of Islamic banking contributes to strengthening sustainable financial literacy. The application of environmental, social, and governance principles not only improves service efficiency, transparency, and accountability but also aligns with the values of maqasid sharia, which emphasize benefit, justice, trustworthiness, and social responsibility. Thus, the BYOND application functions not only as a digital transaction tool but also as an educational tool that supports the development of sustainable financial behavior in accordance with Islamic banking principles.

### ESG as a Mediator

The ESG principles in the BYOND application demonstrate potential as a mediator in improving sustainable financial literacy. Within the context of digital services, ESG integration is evident through a paperless and efficient transaction system, easy access to financial services for customers, and transparency, security, and compliance with Sharia principles. This can be seen in the following indicator table:

**Table 2. Summary of Interview Results on ESG Integration in the BYOND Application**

| Indicator | Interview | Informant |
|---|---|---|
| Digital ESG integration | BYOND itself does not promote ESG with that label, but its integration appears through several products and features in the BYOND application. | AB-01 |
| Customer trust and sustainable financial literacy | The use of the BYOND application is introduced from the beginning of the customer's account opening, several features in it support very practical transactions and have a positive impact on social awareness in financial management. It was conveyed that the community has become more aware of the importance of transparency and social responsibility, such as using money wisely and supporting beneficial activities. In addition, financial literacy obtained through this system helps | AB-02 |

| | | |
|---|---|---|
| Integrative media | the community understand the importance of transparency and responsibility and financial management is not only about saving, but also has a value of benefit. Integrative media such as the BYOND app plays a crucial role in ESG implementation. This platform supports transparency and accountability (governance), improves public financial literacy through educational content, promotes financial inclusion and customer data security (social), and reduces paper use through digital systems (environmental). | AB-02 |

*Personal interview 25 February-17 March 2026*

The interview results above explain that ESG integration in the BYOND application demonstrates that the system serves as an integration medium that supports financial transparency and accountability (governance), increases literacy and social awareness through collaboration with Islamic banks (social), and helps reduce paper use with digital systems (environmental). However, public awareness of linking financial activities to environmental sustainability remains low, requiring more intensive education for optimal ESG integration.

Based on interviews regarding the role of ESG, it can be concluded that the BYOND application functions as an integrative mediator that connects sharia principles with sustainable financial practices through three main aspects. From a governance perspective, this system can increase transparency and accountability in public finances because all transactions are recorded digitally and connected to Islamic banks, thus ensuring their halal status and sustainability. From a social perspective, BYOND supports financial literacy and public awareness of wise financial use and supports community-beneficial activities. Meanwhile, from an environmental perspective, digitalization policies help reduce paper use, although public awareness of linking financial activities to environmental sustainability remains relatively low. Therefore, more intensive outreach and training programs are needed to ensure optimal and comprehensive ESG implementation.

**Identification of Supporting and Inhibiting Factors**

The integration of ESG principles into the digitalization of Islamic banking as a mediator towards sustainable financial literacy in Kerang Krajan village faces several supporting and inhibiting factors. From an environmental perspective, support is evident through policies that have begun to encourage paper reduction through the use of digital systems. However, the challenge is the still low level of public awareness in linking financial activities to environmental sustainability. From a social perspective, the use of the BYOND application is a crucial factor in improving public financial literacy. However, some communities still utilize the BYOND application minimally, resulting in an uneven impact. Meanwhile, from a governance perspective, the existence of a transparent digital financial system can facilitate oversight and foster trust. However, a barrier that arises is the limited human resources needed to optimize ongoing monitoring and evaluation.

**Figure 1: documentation of one of the communities carrying out a transaction using BYOND**

The documentation photo illustrates that the integration of ESG principles in the BYOND application has had a real supporting factor, as seen from the enthusiasm of one of the people who is using BYOND for transactions, this is one form of utilizing a digital financial system that is transparent and easy to monitor. This situation confirms that governance and social aspects have been effective in improving public financial literacy. However, challenges remain in the environmental aspect, as public awareness of linking financial activities to environmental sustainability is still unequal. Therefore, ESG implementation still requires strengthening in the environmental dimension.

**Discussion**

The integration of Environmental, Social, and Governance (ESG) principles into Islamic financial literacy demonstrates a concrete step in building sustainable financial literacy that aligns with Islamic values. Based on field interviews, the BYOND by BSI application demonstrates the integration of ESG principles into its available features. From an environmental perspective, the implementation of a digital system through the BYOND application can reduce paper use, thereby encouraging resource efficiency and minimizing the environmental impact of non-digital financial practices.(Kankanamge et al., 2026), besides that, with this digital system, mobility to branch offices can also be reduced, because transactions can be carried out anywhere and at any time.(Yıldırım & Erdil, 2024).

This digital system not only makes it easier to manage financial data but also opens up opportunities for the public to understand how financial practices can impact environmental sustainability.(Böttcher et al., 2024)However, public awareness in linking financial activities with environmental principles is still relatively low.(Owojori & Anwana, 2024)This is caused by the lack of public literacy regarding the relevance of finance and the environment. In addition, the environmental impacts resulting from digital transactions are not directly visible, making them difficult to realize. Therefore, intensive education is needed so that the environmental aspects are more optimal.(Quince & Nikolic, 2026).

The integration of social aspects into the BYOND app, combined with collaboration with Islamic banks, has had a positive impact on public financial literacy. The public has become more aware of the importance of transparency, accountability, and responsible financial management for healthier lives. One example is the digital gold investment feature in the BYOND app, which can open investment prospects for the younger generation and support social responsibility in managing personal and collective finances.(Rizqiyah et al., 2025)This is in line with literature findings which state that ESG integration in Islamic education can increase social awareness and business ethics based on maqashid sharia, where financial management is not only focused on profits, but also on social benefits and sustainability.(Mohd Zain et al., 2024). Community experience shows that the use of digital systems encourages them to be more disciplined in recording transactions, monitoring cash flow, and understanding the social implications of financial management, so that financial literacy is not only theoretical but also practical. (Koskelainen et al., 2023).

The governance aspect of the BYOND application is integrated through the implementation of a digital financial system that is transparent, accountable, and easy to monitor.(Milla & Putra, 2025)Every transaction is recorded digitally and directly connected to Islamic banks, thus supporting Sharia principles related to halal (permissible) and financial sustainability. This financial system oversight allows relevant parties to conduct real-time monitoring, strengthening trust, and minimizing the potential risk of irregularities.(Abikoye et al., 2024). Financial digitalization not only simplifies transactions but also strengthens public financial governance, as evidenced by the transparency of balance transfer and transaction history features in the BYOND application.

In this study, ESG is integrated into the BYOND application which functions as a mediator in efforts to improve sustainable financial literacy.(Hidayat-ur-Rehman, 2025), this mechanism can be known through the integration of ESG principles in digital systems (BYOND) in providing features that reflect transparency, social inclusion and environmental efficiency, in addition to that, the community interacts directly with the BYOND application in daily use, so that an indirect learning process occurs that can shape behavioral changes.(Hidayat-ur-Rehman, 2025), such as increasing awareness in managing finances transparently and responsibly, therefore, it can be concluded that ESG has played an active role as a mediator that transforms financial technology into an educational tool towards sustainable financial literacy.

Comparison with other literature shows that ESG principles integrated through the BYOND application are effective and show significant results. Some literature suggests that ESG integration can improve governance quality, support sustainable investment, and strengthen social awareness among the public and industry players.(Dmuchowski et al., 2023)However, similar challenges are also found at the global level, especially regarding environmental aspects, where environmental literacy and awareness are still the main obstacles in implementing ESG, it is understandable that the social and governance dimensions are more quickly accepted.(Paridhi et al., 2025).

Thus, it can be concluded that the use of the BYOND application as an integrative medium shows that technology can be a link between ESG principles, sharia and sustainable financial practices.(Mohd Zain et al., 2024)ESG integration has shown significant progress, particularly in governance and social aspects, while environmental aspects still require strengthening and intensive education. In line with this, strengthening can be achieved through more targeted ESG literacy, not only through educational spaces but also through the use of technology in digital systems, such as notifications of environmental contributions through transactions using the BYOND application.(Odintsova, 2024)With a more focused strategy, strengthening education, environmental campaigns, and active collaboration, as well as implementation strategies, can potentially become a holistic, sharia-based sustainable financial literacy model, optimally integrating the three ESG pillars.(Mohd Zain et al., 2024).

## 4. CONCLUSION

This study demonstrates that the integration of Environmental, Social, and Governance (ESG) principles into the digitalization of Islamic banking through the BYOND application can support the strengthening of Sharia-based sustainable financial literacy. The main contribution of this study is that digital banking services that implement the principles of transparency, accountability, ethical finance, and compliance with Sharia principles can improve public understanding of responsible financial management and strengthen collaboration between Islamic banks, customers, and stakeholders in realizing sustainable finance. However, this study has limitations because it was conducted in a single community with a limited number of informants, so the results cannot be broadly generalized. Therefore, further research is recommended involving more diverse regions and informants and combining qualitative and quantitative approaches. Practically, Islamic banks are expected to continue developing innovative ESG-based digital services, regulators need to strengthen policies and education regarding Sharia-based sustainable finance, while the public is expected to increase the wise use of digital financial services as part of strengthening sustainable financial literacy.

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