

Assessing ESG Integration: Does Sustainability Enhance Financial Stability in Indonesian Banks?

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Abstract:

The adoption of Environmental, Social, and Governance (ESG) principles within Indonesia's financial industry presents a promising avenue for enhancing financial resilience and stability, particularly in the banking sector. ESG integration is anticipated to positively influence long-term resilience by emphasizing the three key pillars: environmental sustainability, social responsibility, and robust governance. This study investigates the impact of ESG scores on the financial stability of commercial banks in Indonesia, utilizing key financial indicators such as Capital Adequacy Ratio (CAR), Non-Performing Loans (NPL), Return on Equity (ROE), Return on Assets (ROA), and Loan-to-Deposit Ratio (LDR). The sample comprises Indonesian commercial banks that received ESG ratings in 2024 from Sustainalytics, a leading ESG research and analysis provider. Multivariate Analysis of Variance (MANOVA) was employed to analyze the data. The findings reveal those variations in ESG scores—whether low, medium, or high—do not have a statistically significant effect on the financial stability of banks in Indonesia.

Keywords: *ESG, Financial Stability, Banks, Sustainability*

A. INTRODUCTION

The implementation of Environmental, Social, and Governance (ESG) principles in the financial industry has become a pivotal issue in recent years, especially in emerging markets like Indonesia. ESG integration is seen as a strategy to enhance both the resilience and long-term stability of financial institutions, particularly within the banking sector. This focus on the three ESG pillars—environment, social, and governance—has sparked significant discussions about their potential to improve financial outcomes while fostering sustainable development.

The banking industry, as a crucial part of Indonesia's economic infrastructure, is expected to play a central role in this transition toward more sustainable practices.

Indonesia's banking sector, like many others around the globe, faces growing pressure from stakeholders, including regulators, investors, and customers, to adopt more responsible practices that align with ESG standards. The financial institutions' ability to navigate environmental challenges, address social concerns, and maintain strong governance frameworks could be a key determinant of their long-term viability. Moreover, the increasing emphasis on sustainable finance has opened new avenues for banks to manage risks and capitalize on opportunities linked to environmental and social factors.

This study aims to explore how ESG scores influence the financial stability of commercial banks in Indonesia. Specifically, it investigates the relationship between ESG scores and key financial indicators, including Capital Adequacy Ratio (CAR), Non-Performing Loans (NPL), Return on Equity (ROE), Return on Assets (ROA), and Loan to Deposit Ratio (LDR). By examining these metrics, the study seeks to understand whether banks with higher ESG scores exhibit greater financial resilience, which could contribute to the overall stability of the banking sector in the country.

The sample for this research is drawn from commercial banks in Indonesia that received ESG scores from Sustainalytics in 2024. Sustainalytics is a global leader in providing ESG and corporate governance research, and their assessments are widely used to evaluate companies' commitment to sustainability. This focus on banks that have been evaluated using these metrics provides a unique insight into how ESG performance correlates with financial stability in a developing market context.

Data analysis is conducted using multivariate statistical methods, specifically, Multivariate Analysis of Variance (MANOVA), which allows for the examination of how different levels of ESG scores (low, medium, and high) impact financial indicators. The results of this analysis reveal that ESG scores, whether categorized as low, medium, or high, do not have a statistically significant impact on the financial stability of Indonesian banks. This finding raises important questions about the perceived benefits of ESG integration in the banking sector and suggests that other factors may play a more critical role in ensuring financial resilience.

While the integration of ESG principles is widely regarded as a positive step toward sustainable development, this study finds that, within the context of Indonesia's banking sector, ESG scores alone are not sufficient to enhance financial stability. Further research is needed to explore the underlying mechanisms through which ESG factors may influence financial outcomes, and to assess whether these factors can be better aligned with risk management strategies in the banking industry.

B. LITERATURE REVIEW

Environmental, Social, and Governance (ESG) frameworks provide a comprehensive approach to evaluating corporate sustainability and responsibility. ESG theory is built on the premise that businesses have a broader societal obligation beyond profit maximization. This

is rooted in stakeholder theory (Edward Freeman & Phillips, 2002), which emphasizes that companies should create value not only for shareholders but also for other stakeholders, including employees, customers, communities, and the environment. In the context of banking, ESG theory suggests that by aligning operations with these principles, banks can mitigate non-financial risks, improve their social license to operate, and build long-term resilience.

Within the financial sector, ESG is often linked to the concept of sustainable finance, which integrates environmental, social, and governance considerations into financial decision-making processes. This is seen as a way for financial institutions to manage risks and opportunities arising from sustainability issues. For example, climate change presents physical and transition risks that can affect a bank's portfolio, while governance failures can lead to reputational damage or regulatory penalties. Companies with strong sustainability practices tend to perform better both operationally and financially. In short, responsibility and profitability can go together, encouraging investors to focus on sustainable returns, not just profits.

Furthermore, the resource-based view (RBV) provides a theoretical lens to understand ESG's role in creating competitive advantage. According to RBV, a firm's unique resources and capabilities, including those related to sustainability practices, can lead to superior financial performance. For banks, embedding ESG into their operations can differentiate them from competitors, attract ethical investors, and open access to sustainable finance products like green bonds. This strategic perspective posits that banks that successfully integrate ESG are likely to be more resilient in the face of economic shocks, thereby improving their financial stability.

Financial stability is a cornerstone of economic resilience, particularly within the banking sector, where disruptions can have widespread consequences for the broader economy. The theory of financial intermediation (Lin, 2000) suggests that banks act as intermediaries between savers and borrowers, playing a critical role in channelling funds toward productive investments. However, this intermediation role is vulnerable to both internal inefficiencies and external economic shocks, making financial stability a key objective for regulators and policymakers.

Financial stability can be understood through various theoretical models that emphasize the importance of maintaining adequate capital buffers, sound risk management, and strong governance structures. The Basel Accords, developed by the Basel Committee on Banking Supervision, provide a theoretical and regulatory framework for ensuring that banks maintain sufficient capital reserves to absorb potential losses and avoid systemic crises. These accords highlight key financial stability indicators such as the Capital Adequacy Ratio (CAR), which measures a bank's capital relative to its risk-weighted assets, and Non-Performing Loans (NPL), which reflect the health of a bank's loan portfolio. Other financial ratios, such as Return on Equity (ROE), Return on Assets (ROA), and the Loan-to-Deposit Ratio (LDR), provide insights into a bank's profitability, efficiency, and liquidity.

The relationship between ESG and financial stability is often framed within the context of risk management theory. ESG factors are increasingly seen as non-financial risks that can have

material financial consequences. For instance, environmental risks such as climate change can lead to credit risk if borrowers are unable to repay loans due to physical or regulatory impacts. Social risks, such as labour disputes or consumer boycotts, can affect a bank's profitability, while governance risks, including corruption or fraud, can undermine trust and lead to regulatory penalties. From this perspective, integrating ESG factors into a bank's risk management framework can enhance its financial stability by reducing exposure to these non-financial risks.

The relationship between ESG performance and financial stability has been the subject of growing academic inquiry, particularly in recent years. One of the most comprehensive reviews of the ESG-financial performance relationship was conducted by Friede, Busch, and Bassen (2015), who performed a meta-analysis of over 2,200 empirical studies. Their findings indicated that many studies showed a positive or neutral relationship between ESG practices and financial performance. This suggests that ESG integration, at the very least, does not harm financial outcomes and may, in fact, improve them by fostering better risk management and long-term planning (Friede et al., 2015).

Several other studies have specifically explored the impact of ESG on financial stability within the banking sector. Giese et al. (2019) found that banks with higher ESG scores tended to experience lower volatility in their financial performance and were better positioned to withstand economic shocks (Giese et al., 2019). Similarly, research by Nofsinger and Varma (2014) demonstrated that banks focusing on sustainability during times of market crisis showed better financial performance than those that did not (Nofsinger et al., 2018). This finding aligns with the proactive risk management theory, which suggests that integrating ESG considerations helps banks anticipate and mitigate emerging risks, thereby enhancing financial stability. As demonstrated in a study by Chiaramonte, ESG strategies were found to enhance bank stability during financial crises in Europe. (Chiaramonte et al., 2022).

However, not all studies have found a direct correlation between ESG and financial stability. Some scholars argue that the impact of ESG varies depending on the regional context and the maturity of the financial market. Numerous studies investigating the relationship between ESG and financial stability in emerging markets have yielded nuanced findings. Tarczynska-Luniewska et al. (2024) observed that while the adoption of ESG practices is on the rise, their impact on financial performance and stability remains inconclusive, primarily due to weak regulatory frameworks and inconsistencies in data quality. (Tarczynska-Luniewska et al., 2024). These findings are particularly relevant in the context of Indonesia, where the financial sector is still in the early stages of ESG adoption.

In Indonesia, limited research has been conducted on the relationship between ESG and financial stability. Most studies have focused on the broader impact of ESG on firm performance, with little attention given to how ESG scores affect specific financial stability indicators such as CAR, NPL, ROE, ROA, and LDR. The study by Defung et.al (2024) shows that higher ESG risks tend to make banks in Indonesia less stable, especially for government-owned, smaller, and non-listed banks that face more pressure and have fewer resources (Defung et al., 2024).

Despite the growing body of literature on ESG and financial performance, significant gaps remain in understanding its impact on financial stability, particularly in emerging economies like Indonesia. Most existing studies have focused on developed markets, where ESG adoption is more mature, and the regulatory environment is more supportive. There is a need for further empirical research to explore how ESG scores influence financial stability indicators in Indonesia's banking sector. This study aims to fill this gap by investigating the relationship between ESG performance and key financial stability metrics such as CAR, NPL, ROE, ROA, and LDR in Indonesian commercial banks.

C. RESEARCH METHODOLOGY

This study is a quantitative research aimed at examining the relationship between Environmental, Social, and Governance (ESG) scores and key financial indicators of Islamic banks in Indonesia. The analysis is based on a sample of quarterly financial reports from Islamic banks, as provided by the Otoritas Jasa Keuangan (OJK), Indonesia's Financial Services Authority. These reports include critical financial indicators such as Capital Adequacy Ratio (CAR), Non-Performing Loans (NPL), Return on Assets (ROA), Return on Equity (ROE), and Loan to Deposit Ratio (LDR).

The ESG data used in this study is sourced from Sustainalytics, a globally recognized ESG rating provider. Sustainalytics scores provide a standardized measure of each bank's performance in environmental, social, and governance practices. By integrating these scores with financial performance indicators, this research seeks to identify any significant correlations or impacts of ESG ratings on the stability and performance of Islamic banks in Indonesia.

Data were processed and analyzed using multivariate statistical methods, specifically Multivariate Analysis of Variance (MANOVA), to determine whether variations in ESG scores correspond to significant differences in the banking indicators. The quantitative approach and reliance on objective financial and ESG data allow for a robust, data-driven understanding of ESG influence on Islamic banking performance in the Indonesian context.

D. RESULTS AND DISCUSSION

The results of this study provide insights into the impact of ESG scores on key financial indicators of Islamic banks in Indonesia. A Multivariate Analysis of Variance (MANOVA) was conducted to test the influence of ESG scores on Capital Adequacy Ratio (CAR), Non-Performing Loans (NPL), Return on Assets (ROA), Return on Equity (ROE), and Loan to Deposit Ratio (LDR).

Effect of ESG on Banking Indicators

The multivariate test results indicated that ESG scores do not have a statistically significant overall effect on the combination of the five financial indicators. This suggests that the aggregate impact of ESG scores on these banking indicators is not strong enough to be statistically noteworthy within this dataset.

Capital Adequacy Ratio (CAR)

When examining individual indicators, CAR was the only metric showing significant differences between ESG categories in the LSD (Least Significant Difference) post-hoc analysis. Specifically, banks with high ESG scores demonstrated a significantly higher CAR compared to those with low and medium ESG scores. This result aligns with the hypothesis that higher ESG performance may be associated with enhanced financial stability, as a higher CAR indicates a better-capitalized bank with stronger resilience against financial stress. However, this difference was not statistically significant in the more conservative Bonferroni post-hoc test, suggesting that the relationship between ESG and CAR, while suggestive, may require further validation with a larger sample.

Non-Performing Loans (NPL), ROA, ROE, and LDR

The results for NPL, ROA, ROE, and LDR showed no significant differences across ESG categories, as none of these indicators were influenced by varying ESG scores. This implies that ESG factors may not directly impact credit risk (NPL) or profitability metrics (ROA, ROE) for Islamic banks within the analyzed sample. The lack of a clear relationship could be attributed to the specific characteristics of Islamic banking, where operational models and regulatory requirements differ from conventional banking. Islamic banks often adhere to principles that emphasize social responsibility, possibly leading to more homogeneity in their financial indicators regardless of ESG scores.

The finding that higher ESG scores correlate with a stronger CAR but not with other indicators highlights a potential area where ESG principles align with increased capital stability for Islamic banks. This may be due to the rigorous capital requirements and conservative lending practices in Islamic finance, which inherently mitigate risk. ESG initiatives may reinforce these practices, resulting in better capitalization.

The insignificant impact of ESG on other indicators such as NPL, ROA, and ROE suggests that while ESG factors are becoming increasingly recognized, they may not yet play a central role in influencing profitability and risk metrics in the Islamic banking sector. The unique structure of Islamic banks, which focuses on risk-sharing and social justice, might limit the observable impact of ESG practices on standard financial metrics.

E. CONCLUSION

In summary, while the relationship between ESG scores and financial stability in Islamic banks shows potential, particularly in capital adequacy, the impact on broader financial performance remains unclear. This study underscores the need for continued exploration into the role of ESG in enhancing the resilience and sustainability of Islamic financial institutions. Future research could explore additional variables or utilize larger datasets to validate these findings. Additionally, qualitative assessments may provide insights into how ESG strategies are implemented within Islamic banks and whether these practices influence operational stability beyond traditional financial metrics.

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