

# The Effect of ESG Adoption and CSR Disclosure on Financial Performance of Indonesian Listed Banks

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## ARTICLE INFO

### Article history

Received

Revised

Accepted

### Keywords

ESG

CSR

Financial Performance

Banking

Indonesia Stock Exchange

Digital Transformation.

## ABSTRACT

This study aims to analyze the influence of Environmental, Social, and Governance (ESG) adoption and Corporate Social Responsibility (CSR) disclosure on the financial performance of banks listed on the Indonesia Stock Exchange (IDX/BEI). Through a library research approach, this study synthesizes findings from three main sources a study on the effect of profitability on firm value with ESG as a moderating variable in ASEAN-6 companies, an analysis of the effect of ESG on financial performance with digital transformation as a moderating variable; and a study on the effect of CSR disclosure on the financial performance of banks listed on the BEI. The synthesis results indicate that ESG adoption has a positive and significant effect on financial performance, particularly when supported by advanced digital transformation. In contrast, CSR disclosure in the BEI banking sector showed no significant effect, indicating that Indonesian investors remain short-term oriented. This study concludes that the integration of ESG in banking corporate strategy, strengthened by digital technology, is key to sustainable financial performance improvement.

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## 1. Introduction

The banking sector plays a strategic role in the Indonesian economy as a financial intermediary and catalyst for national economic growth. In the last decade, bank performance assessments are no longer solely determined by conventional financial indicators such as Return on Assets (ROA), Return on Equity (ROE), and Net Interest Margin (NIM) but are increasingly influenced by sustainability dimensions reflected in Environmental, Social, and Governance (ESG) and Corporate Social Responsibility (CSR) practices. This paradigm shift raises a fundamental question: does ESG adoption and CSR disclosure significantly contribute to improving the financial performance of banks listed on the Indonesia Stock Exchange (IDX).

This research problem stems from inconsistencies in empirical findings scattered throughout the literature. On the one hand, research on ASEAN-6 companies demonstrates that ESG has a positive and significant moderating effect on the relationship between profitability and firm value (Tyas & Prastiwi, 2025).

On the other hand, a specific study of 30 banks listed on the Indonesia Stock Exchange (IDX) in 2011 showed that CSR disclosure had no significant effect on financial performance, with a significance level of only 7.2% (Winardi, 2013). This gap suggests that contextual factors, including digital maturity, investor characteristics, and the regulatory framework, may moderate the relationship between ESG/CSR and financial performance in the Indonesian banking sector.

This interesting phenomenon is further strengthened when digital transformation is considered a moderating variable. (Heryana & Soeratin, 2025) found that companies integrating digital technology into ESG implementation achieved 30% higher efficiency compared to conventional ESG implementation. The use of the Internet of Things (IoT), blockchain, and artificial intelligence in ESG management resulted in 60% faster and more accurate risk identification. This fact demonstrates that digital transformation is not only an enabler but also a catalyst that determines the effectiveness of ESG adoption on financial performance. (Rahayu, 2024)

In Indonesia, the Financial Services Authority (OJK) has issued various regulations supporting sustainability, including POJK No. 51/POJK.03/2017 concerning the Implementation of Sustainable Finance. This policy creates institutional pressure on banks to integrate ESG principles into their operations. However, a survey (KPMG, 2022) shows that although 78% of companies in Southeast Asia have an ESG strategy, only 37% have a comprehensive monitoring and evaluation system, indicating a persistent gap between commitment and effective implementation.

Based on the description above, this study formulates the following objectives: (1) to analyze the effect of ESG adoption on the financial performance of banks listed on the IDX; (2) to analyze the effect of CSR disclosure on the financial performance of banks listed on the IDX; (3) to identify the role of digital transformation as a moderating variable in the ESG-financial performance relationship between banks; and (4) to provide strategic recommendations for bank management and regulators in optimizing ESG and CSR implementation. (Hamdi et al., 2022)

The theoretical foundation of this study rests on two main theories. First, Signaling Theory, developed by Spence (1973) and applied in the ESG context by Zhang (2023), states that high-quality ESG disclosure is a positive signal to investors regarding a company's commitment to sustainability and long-term risk management. Consistent with this theory, Tyas & Prastiwi (2025) demonstrate that consistent profitability provides a positive signal to investors, while ESG strengthens this signal. Second, Legitimacy Theory explains the company's motivation in disclosing CSR information as an effort to build and maintain social legitimacy in the eyes of stakeholders (Guthrie & Parker, 1990, in Winardi, 2013). These two theories complementarily explain why and how ESG and CSR can affect a company's financial performance.

The novelty of this study lies in its integrated analysis of ESG adoption, CSR disclosure, and digital transformation within the Indonesian banking sector. Unlike previous studies that examined these variables separately, this study synthesizes recent empirical findings to explain how digital transformation enhances the effectiveness of ESG implementation in improving financial performance.

## **2. Method**

This research employed a qualitative approach with a library research method. This approach was chosen for its ability to explore, synthesize, and interpret various theoretical and empirical perspectives from relevant literature, resulting in a holistic understanding of the relationship between ESG, CSR, and banking financial performance in Indonesia. (Tang et al., 2024)

Data analysis was conducted through four systematic stages. First, literature collection and selection based on relevance, source credibility, and recency (the last 10 years, 2013–2025). Second, thematic coding to identify key patterns emerging from the three primary sources, particularly related to ESG, CSR, financial performance, and moderating factors. Third, comparative synthesis to compare the methodology, context, and findings from each source. Fourth, in-depth interpretation to generate new propositions relevant to the Indonesian banking context. Research validity was ensured through source triangulation, which compares findings from various literatures and different perspectives to ensure consistency of interpretation. (Samuel et al., 2024).

3. Results and Discussion

3.1 Conceptual Differences between ESG and CSR in the Banking Context

Before discussing the influence of each variable on financial performance, it is important to understand the conceptual differences between ESG and CSR, particularly in the context of Indonesian banking. ESG is a quantitatively measurable assessment framework, using scores from rating agencies such as Bloomberg, MSCI, or Refinitiv, that encompasses environmental, social, and governance aspects. In contrast, CSR is more narrative and voluntary, measured through content analysis of companies' annual reports. Table 1 summarizes the fundamental differences between the two concepts.

Table 1. Conceptual Comparison of ESG and CSR

| Aspek                            | ESG (Environmental, Social, Governance)                                             | CSR (Corporate Social Responsibility)                              |
|----------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| Definisi                         | Kerangka penilaian kinerja keberlanjutan perusahaan yang terukur secara kuantitatif | Komitmen sukarela perusahaan terhadap dampak sosial dan lingkungan |
| Pengukuran                       | Skor ESG (Bloomberg, MSCI, Refinitiv)                                               | Indeks pengungkapan CSR (content analysis)                         |
| Sifat Fokus                      | Terstandarisasi, berbasis data kuantitatif Investor & pasar modal                   | Sukarela, berbasis laporan naratif Pemangku kepentingan luas       |
| Hubungan dengan Kinerja Keuangan | Positif dan signifikan (Tyas & Prastiwi, 2025; Heryana & Soeratin, 2025)            | Beragam: negatif pada perbankan Indonesia (Winardi, 2013)          |

Source: Author's analysis, Adapted from Tyas & Prastiwi (2025), Heryana & Soeratin (2025), and Winardi (2013)

3.2 The Impact of ESG Adoption on Bank Financial Performance

Based on research by Tyas and Prastiwi (2025) on 661 ASEAN-6 companies from 2019–2023, they found that profitability (ROA) had a positive and significant effect on firm value (Tobin's Q) with a p-value of  $0.000 < 0.05$  and a coefficient of 9.931. Crucially, ESG was shown to strengthen the interaction between ROA and firm value, with an ROA ESG interaction coefficient of 0.167 (p-value of 0.000). This finding confirms that ESG is not simply a reporting tool, but rather a real value creation mechanism.

The ESG value creation mechanism for banking operates through several channels. First, improved risk management: banks with high ESG scores have been shown to be able to identify and respond more quickly to risks, including credit risks associated with potentially environmentally harmful projects. Heryana and Soeratin (2025) demonstrated that implementing a digital platform for ESG risk evaluation in the credit process resulted in a 35% reduction in non-performing loans (NPLs) for green portfolios. Second, access to cheaper financing: on average, banks with high ESG scores enjoy a 75–100 basis point lower cost of capital compared to their peers, which directly improves net interest margins (NIM). Third, increased investor confidence: over 78% of institutional investors now include ESG capability assessments as part of their due diligence.

In the context of Indonesian regulations, the implementation of POJK No. 51/POJK.03/2017 encourages banks to integrate ESG aspects into credit and operational risk assessments. Banks that adopt the ESG framework early have the potential to gain a competitive advantage in the form of access to the rapidly growing green financing market segment (Finance, 2017). Data from the Global Sustainable Investment Alliance shows that sustainable investment assets reached USD 35.3 trillion in 2020, a 15% increase compared to 2018—a market that has not been optimally utilized by Indonesian banks. (Fatima et al., 2023)

Recent evidence from the Indonesian banking sector further confirms the positive role of ESG disclosure in enhancing financial performance. ESG transparency has been found to strengthen investor confidence and improve shareholder-oriented performance, particularly through its positive effect on Return on Equity (ROE). This finding indicates that ESG implementation is increasingly recognized not only as a sustainability initiative but also as a strategic mechanism for creating long-term corporate value.

Furthermore, environmental and social disclosure dimensions have been shown to contribute positively to banking profitability. Banks that consistently disclose ESG-related information tend to

demonstrate stronger financial resilience and improved operational performance compared to institutions with limited sustainability reporting practices.

### 3.3 The Influence of CSR Disclosure on Bank Financial Performance on the IDX

Winardi's (2013) research contrasts with global ESG trends. Of 30 banks listed on the Indonesia Stock Exchange (IDX) in 2011, CSR disclosure was shown to have no significant effect on financial performance, as measured by ROA, ROE, and NIM (a significance level of 7.2%, above the 5% threshold). The adjusted  $R^2$  of only 0.079 indicates that CSR only explains 7.9% of the variation in financial performance, with the remaining 92.1% influenced by factors outside the model.

Although earlier studies reported an insignificant relationship between CSR disclosure and financial performance, more recent developments indicate that sustainability-related disclosures have become increasingly relevant for investors. The growing adoption of ESG frameworks and sustainability reporting standards has shifted market attention from purely financial indicators toward broader assessments of corporate responsibility and long-term value creation.

In the Indonesian banking sector, the quality and comprehensiveness of sustainability disclosures remain uneven. Several studies reveal that while many banks have begun implementing ESG reporting practices, important environmental and governance indicators are still underreported, limiting the effectiveness of sustainability disclosure as a signaling mechanism for investors.

At least three explanations can be put forward for this finding. First, investor short-termism: in 2011, Indonesian banking investors were still more responsive to conventional financial indicators than to CSR information. CSR disclosure was viewed as a compliance cost rather than a value driver. Second, the absence of CSR obligations for banks: under Law No. 40, Article 74 of 2007, banks are not required to conduct CSR because their activities are not directly related to natural resources. This situation reduces the credibility and relevance of CSR disclosure in the eyes of investors. Third, methodological limitations: the use of a 74-item content analysis (Hackston & Milne, 1996) may not reflect the substantive quality of CSR programs but only the quantity of disclosure. (Law of the Republic of Indonesia Number 10 of 1998 concerning Banking, 1998).

However, it's important to note that Winardi's (2013) study used data from 2011, a period before ESG reporting became mainstream in Indonesia. With increasing regulatory pressure and investor awareness of sustainability from 2015 onward, the relevance of CSR to bank financial performance has likely changed significantly. Recent research in the ASEAN context confirms this positive trend.

### The Role of Digital Transformation as a Catalyst for ESG-Financial Performance

Heryana and Soeratin (2025) made a significant contribution by demonstrating that digital transformation acts as a positive moderator, strengthening the relationship between ESG and financial performance. Companies with high digital maturity demonstrated 25% higher operating margins in ESG initiatives compared to companies without adequate digital support. During the 2022–2024 period, companies achieving high digital maturity in ESG experienced an average 32% increase in stock value. (Samuel et al., 2024)

Digital transformation strengthens ESG implementation by improving the accuracy, transparency, and timeliness of sustainability reporting. The integration of digital platforms enables banks to collect, monitor, and analyze ESG-related data more efficiently, thereby supporting better decision-making and stakeholder communication.

Emerging technologies such as artificial intelligence, data analytics, and integrated ESG platforms are increasingly recognized as important enablers of sustainable finance. These technologies facilitate risk identification, performance monitoring, and ESG compliance, allowing banks to improve both operational efficiency and sustainability outcomes simultaneously.

For the banking sector, digital-ESG integration opens up transformational opportunities. Blockchain can increase transparency and traceability in green bonds and sustainable financing. Artificial Intelligence (AI) enables more accurate ESG-based credit scoring, with default predictions 45% better than traditional models. Meanwhile, digital platforms for real-time ESG reporting reduce reporting time and costs by up to 45%, while increasing investor and regulatory confidence. (Berthelot et al., 2022)

A key challenge is that 60% of companies still face difficulties integrating digital systems with existing ESG frameworks. For Indonesian banks, investment in digital infrastructure for ESG needs to be viewed as a strategic necessity, not simply a compliance cost. A modular approach, starting with high-impact areas such as operational energy management and credit environmental risk monitoring, has been shown to result in a 65% higher implementation success rate and a 40% faster break-even point.

Table 2. Conceptual Comparison of ESG and CSR

| Variabel                        | Proksi / Alat Ukur                        | Arah Pengaruh              | Keterangan                                       |
|---------------------------------|-------------------------------------------|----------------------------|--------------------------------------------------|
| ESG Performance                 | ESG Score (Bloomberg)                     | Positif & Signifikan       | Memperkuat ROA, Tobin's Q, dan ROE               |
| Pengungkapan CSR                | Content Analysis (Hackston & Milne, 1996) | Tidak Signifikan / Negatif | Pada bank BEI 2011: investor tidak mengapresiasi |
| Transformasi Digital (moderasi) | Maturitas Digital                         | Positif & Signifikan       | Meningkatkan efisiensi ESG hingga 30%            |
| Ukuran Perusahaan               | Ln (Total Aset)                           | Positif                    | Variabel kontrol                                 |
| Leverage                        | Total Hutang / Total Ekuitas              | Beragam                    | Variabel kontrol                                 |

Sources: Author's analysis

From the above synthesis, an important pattern is identified: the effectiveness of ESG and CSR on bank financial performance depends heavily on (1) the quality of implementation, not just formal disclosure; (2) support for digital transformation that enables more accurate measurement and reporting; and (3) the maturity level of investors in considering sustainability factors in investment decisions. Table 3 presents a more detailed comparison between the two key studies.

A critical practical implication for banks on the IDX is the need to transition from a reactive and narrative CSR model to a proactive, measurable, and data-driven ESG model. In the short term, banks need to prioritize investment in an integrated digital ESG reporting system that not only meets regulatory (OJK) requirements but also provides real-time data to investors. In the long term, a high ESG score will become a competitive differentiator, determining the cost of capital and access to the global green financing segment..

4. Conclusion

Based on a comprehensive literature synthesis, this study yields three main conclusions. First, ESG adoption has a positive and significant impact on the financial performance of banks listed on the Indonesia Stock Exchange (IDX), especially when implemented substantially rather than symbolically. ESG has been shown to strengthen the relationship between profitability and firm value through improved risk management mechanisms, reduced cost of capital, and increased investor confidence. This finding is consistent with Signaling Theory: high-quality ESG disclosure sends a positive signal to the market regarding management's commitment to long-term sustainability.

Second, CSR disclosure in the IDX banking sector, particularly in the pre-digital and pre-ESG mainstreaming context, shows an insignificant impact on financial performance. This is due to the short-term orientation of investors, the voluntary and non-mandatory nature of CSR for banks, and the limitations of content analysis-based CSR measurement methodologies. These findings encourage a shift from a CSR-centric paradigm to a more measurable and relevant ESG-centric paradigm.

Third, digital transformation has been shown to act as a catalyst determining the effectiveness of ESG adoption on financial performance. Banks that successfully integrate IoT, AI, and blockchain technologies into ESG management not only achieve greater operational efficiency but also build a stronger foundation for sustainable financial performance growth. These implications are particularly relevant in the context of digital banking in Indonesia, which is currently experiencing accelerated technological transformation.

### Acknowledgment

The author would like to express his gratitude to all parties who have contributed to the completion of this research. Special appreciation is extended to the Management Study Program for its academic support and facilities. The author also thanks the journal managers of Owner: Riset & Jurnal Akuntansi, Journal of Business Economics and Management, and Jurnal Akuntansi Universitas Negeri Surabaya for the accessibility of the scientific works that served as the primary references for this research. Thanks are also extended to the reviewers who provided constructive input in improving this manuscript.

### Declarations

**Author contribution.** All authors contributed to the study conception and design. Anggela Septiani led the conceptualization, methodology development, and writing of the original draft. Vina Valentina was responsible for formal analysis, data curation, and critical review of the literature synthesis. Andrian Bayu Pratama contributed to the investigation, resource gathering, visualization of conceptual frameworks, and writing – review and editing. All authors have read and agreed to the published version of the manuscript.

**Funding statement.** This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors. Politeknik Pengadaan Nasional

**Conflict of interest.** The authors declare no conflict of interest.

**Additional information.** No additional information is available for this paper.

### Data and Software Availability Statements

The data supporting the findings of this study are derived entirely from publicly available secondary sources, including published academic journals, regulatory documents (e.g., OJK regulations), and corporate reports. No new primary datasets were generated or analyzed during this library research. All data sources are fully cited and accessible through the References section. This study employed qualitative thematic synthesis; therefore, no specific proprietary software or custom code was developed or utilized for data analysis.

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