Journal of Economic Education and Entrepreneurship Studies
Vol. 7, No.3, Juni 2026, pp. 152-168
ISSN: 2722-3744 (Print) 2776-0278 (Online)
https://doi.org/10.62794/je3s.v7i3.331

The Effect of ESG Disclosure on Financial Performance: Moderating Role of Firm Size and Leverage

Rinny Meidiyustiani[1*], Indah Rahayu Lestari[2]
[1,2]Universitas Budi Luhur, Jakarta, Indonesia

*Corresponding Author
e-mail: rinny.meidiyustiani@budiluhur.ac.id

Received: February 18, 2026; **Revised:** April 21, 2026; **Accepted**: June 21, 2026

Abstract: Environmental, social, and governance (ESG) disclosure has become an important mechanism for companies to communicate sustainability commitments and reduce information asymmetry in capital markets. This study examines the effect of ESG disclosure on the financial performance of consumer non-cyclicals companies listed on the Indonesia Stock Exchange, with firm size and leverage initially proposed as moderating variables. Using a quantitative explanatory design, this study employed secondary data obtained from annual reports, sustainability reports, financial statements, and Refinitiv LSEG data over a five-year observation period. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS. Financial performance was initially measured using PBV, ROA, and ROE, while firm size was measured by the natural logarithm of total assets and leverage by the debt ratio. The measurement model results showed that ROA and debt did not meet the outer loading criteria and were therefore removed from the final model. The findings reveal that ESG disclosure has a positive and significant effect on financial performance. Firm size also has a positive and significant effect on ESG disclosure but a negative and significant effect on financial performance. However, firm size does not moderate the relationship between ESG disclosure and financial performance. These findings support stakeholder theory and signaling theory by showing that ESG disclosure can function as a value-relevant signal for investors. The study contributes to ESG literature in emerging markets by demonstrating that ESG disclosure directly supports financial performance, although its effect is not contingent on firm size.

Keywords: Consumer Non-Cyclicals; ESG Disclosure; Financial Performance; Firm Size; Leverage; PLS-SEM; Sustainability Reporting

How to Cite: Meidiyustiani, R., & Lestari, I. R. (2026). The Effect of Esg Disclosure on Financial Performance: the Moderating Role of Firm Size and Leverage . *Journal of Economic Education and Entrepreneurship Studies*, 7(3), 152-122. https://doi.org/10.62794/je3s.v7i3.331
Copyright 2025 © The Author(s)

The work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International (CC BY-SA 4.0)

INTRODUCTION

Environmental, social, and governance (ESG) disclosure has become an increasingly important issue in contemporary corporate reporting, particularly as firms are expected to demonstrate accountability beyond short-term financial outcomes. In the current business environment, investors, regulators, consumers, and communities demand more transparent information regarding how companies manage environmental risks, social responsibilities, and governance practices. This shift reflects a broader transformation in corporate accountability, where financial performance is no longer evaluated solely through profitability indicators but also

through the firm's ability to maintain sustainable and responsible operations. Stakeholder theory explains that companies must respond to the expectations of various stakeholder groups to maintain legitimacy, trust, and long-term viability (Aluchna et al. 2022; McGahan 2023; Shah and Guild 2022). In this context, ESG disclosure serves as a communication mechanism through which firms signal their commitment to sustainability and responsible business conduct. Therefore, ESG disclosure is not merely a compliance-oriented activity but a strategic instrument that may influence market perception and financial outcomes.

The increasing relevance of ESG disclosure is closely related to the growing risks faced by firms that fail to address sustainability issues. Companies with weak environmental management may encounter regulatory sanctions, operational disruption, reputational damage, and declining stakeholder confidence. Similarly, poor social practices and ineffective governance structures can weaken organizational credibility and increase agency problems. These risks are particularly important in emerging markets, where sustainability reporting practices continue to develop and where investor confidence often depends on the perceived transparency of corporate information. Prior studies have emphasized that ESG practices can help firms improve risk management, strengthen corporate reputation, and enhance long-term financial resilience (Khalil, Khalil, and Sinliamthong 2024; Landi et al. 2022; Wang, Jiao, and Ma 2024). As a result, the relationship between ESG disclosure and financial performance has become a relevant topic for companies seeking to balance sustainability expectations with financial competitiveness.

In Indonesia, ESG disclosure has gained greater attention as companies listed on the Indonesia Stock Exchange face increasing pressure to improve sustainability transparency. This pressure is particularly evident in sectors that are closely connected to daily consumption, supply chains, and public welfare, such as the consumer non-cyclicals or primary consumer sector. Firms in this sector generally produce or distribute essential goods, including food, beverages, and household necessities, making them highly visible to consumers and regulators. Because their products are consumed widely, these companies are expected to maintain responsible business practices and communicate their sustainability efforts more clearly. ESG disclosure may therefore function as a positive signal to the market by indicating stronger governance quality, better risk awareness, and greater responsiveness to stakeholder concerns (Carnini Pulino et al. 2022; Hamza and Jarboui 2024; Huang et al. 2025). However, the extent to which this disclosure translates into stronger financial performance remains an empirical question that requires further investigation.

The urgency of examining ESG disclosure and financial performance lies in the fact that sustainability initiatives may generate both benefits and costs for firms. On the one hand, ESG implementation can improve reputation, reduce information asymmetry, increase investor trust, and support long-term value creation. On the other hand, ESG-related programs may require substantial investment, administrative capacity, and organizational commitment, which may not immediately produce measurable financial returns. This tension explains why the effect of ESG disclosure on financial performance is often inconsistent across firms, industries, and national contexts. Financial performance itself can be reflected through accounting-based indicators, such as return on assets and return on equity, as well as market-based indicators, such as price-to-book value (Alqahtani et al. 2026; Arshad, Audi, and Ali 2025). Therefore, ESG disclosure should be analyzed not only as an ethical or regulatory issue but also as a strategic factor that may affect corporate profitability and market valuation.

Previous studies have generally shown that ESG disclosure is associated with financial performance, although the direction and strength of this relationship remain debated. Some

studies found that stronger ESG disclosure improves financial performance because it enhances transparency, reduces risk, and strengthens stakeholder trust (Ellili 2022; Shahid 2023; Shalhoob 2025). Other studies reported insignificant or mixed effects, suggesting that ESG disclosure may not always be immediately reflected in profitability or firm value (Mahmood et al. 2025; Moharram et al. n.d.; Su, Zhang, and Han 2025). These variations indicate that ESG disclosure does not operate in isolation but may depend on firm-specific characteristics and contextual conditions. In addition, studies in Indonesia have increasingly linked ESG disclosure with company value, profitability, leverage, and sustainability performance, yet the findings are still fragmented across sectors and proxies (Wardhana and Hersugondo 2025; Widaryanti, Luhgiatno, and Sitawati 2026). This inconsistency highlights the need for further empirical research that considers the conditional factors shaping the ESG–performance relationship.

Firm size is one of the most frequently discussed firm characteristics in ESG-related studies because it reflects resource capacity, organizational visibility, and public scrutiny. Larger firms tend to have more financial and managerial resources to implement ESG practices and prepare sustainability reports. They are also more exposed to stakeholder pressure, making them more likely to disclose ESG information to maintain legitimacy and public trust (Chan 2026; He et al. 2025; Kaakeh and Kaakeh 2025). From a signaling perspective, firm size may strengthen the credibility of ESG disclosure because larger companies are often perceived as having better systems, stronger governance, and greater capacity to sustain long-term initiatives. However, large firm size can also create bureaucratic complexity, inefficiency, and higher agency costs, which may weaken financial performance despite stronger disclosure practices (Chen, Yang, and Yu 2024; Kim and Kang 2026). Thus, firm size may not only influence ESG disclosure directly but may also determine whether ESG disclosure produces stronger or weaker financial outcomes.

Leverage or debt ratio is another important factor that may influence the relationship between ESG disclosure and financial performance. Firms with high leverage face greater financial obligations, tighter monitoring from creditors, and higher pressure to maintain stable cash flows. In such conditions, ESG disclosure may serve as a positive signal that the company is committed to responsible governance and risk management, thereby reducing uncertainty among creditors and investors (Chouaibi et al. 2023; Menla Ali, Wu, and Zhang 2024). Nevertheless, high leverage may also limit managerial flexibility and reduce the firm's ability to allocate resources for sustainability initiatives. Several studies have shown that leverage can have positive, negative, or insignificant effects on firm performance depending on industry characteristics, financial structure, and ESG implementation intensity (Arhinful and Radmehr 2023; Kalash 2021). These mixed findings suggest that leverage should not be treated merely as a control variable but also as a potential moderator that may alter the strength of the ESG disclosure–financial performance relationship.

Although research on ESG disclosure has expanded rapidly, several important gaps remain unresolved. First, many studies examine the direct effect of ESG disclosure on financial performance without adequately considering whether firm characteristics strengthen or weaken this relationship. Second, studies that simultaneously examine firm size and leverage as moderating variables are still limited, particularly in the Indonesian consumer non-cyclicals sector. Third, previous findings remain inconsistent because researchers use different financial performance indicators, ESG proxies, and sectoral samples, making it difficult to draw a clear conclusion about when ESG disclosure creates financial benefits. Fourth, most studies tend to position firm size or leverage as control variables, while their potential moderating role has not been critically (Albitar et al. 2023; Hutauruk 2024; Saleh, Eleyan, and Maigoshi 2022). These gaps

provide a strong rationale for examining whether ESG disclosure improves financial performance and whether this effect depends on firm size and leverage.

Based on these considerations, this study aims to examine the effect of ESG disclosure on the financial performance of consumer non-cyclicals companies in Indonesia, with firm size and leverage as moderating variables. Financial performance is understood through indicators that reflect both profitability and market valuation, while ESG disclosure represents the extent to which firms communicate their environmental, social, and governance responsibilities. Theoretically, this study contributes to the development of stakeholder theory and signaling theory by explaining how ESG disclosure can influence financial outcomes under different firm conditions. Practically, the findings are expected to provide insights for corporate managers in designing sustainability strategies that are not only responsible but also financially meaningful. For investors, this study may help clarify whether ESG disclosure can be used as a relevant signal in evaluating firm performance. For regulators and policymakers, the results may support the development of more effective sustainability reporting standards in Indonesia's capital market.

METHOD

This study employed a quantitative explanatory research design to examine the effect of environmental, social, and governance (ESG) disclosure on corporate financial performance, with firm size and leverage treated as moderating variables. A quantitative approach was considered appropriate because the study tested predetermined hypotheses using numerical corporate data and statistical modeling. The explanatory design was selected to evaluate not only the direct relationship between ESG disclosure and financial performance but also the conditional effect of firm-specific characteristics on this relationship. The unit of analysis was firm-year observations, which allowed the study to capture variations in ESG disclosure, financial performance, firm size, and leverage across companies and observation years. This design is relevant for identifying whether sustainability-related disclosure contributes to financial outcomes and whether such contribution differs according to company characteristics.

The research was conducted in the context of publicly listed companies in Indonesia, particularly those included in the consumer non-cyclicals or primary consumer sector on the Indonesia Stock Exchange (IDX). This sector was selected because it consists of companies that produce and distribute essential goods, such as food, beverages, household products, and other basic consumer necessities. Firms in this sector have relatively stable demand and high public visibility, making ESG disclosure highly relevant to their relationship with consumers, investors, regulators, and broader stakeholders. The observation period covered five consecutive fiscal years, based on the availability of ESG and financial data in annual reports, sustainability reports, company financial statements, and Refinitiv LSEG data. The five-year period was used to provide sufficient longitudinal variation and to reduce the risk of drawing conclusions from short-term fluctuations in corporate performance.

The population of this study consisted of all consumer non-cyclicals companies listed on the Indonesia Stock Exchange during the observation period. The sample was selected using purposive sampling because not all companies provided complete ESG and financial data required for the analysis. The inclusion criteria were as follows: companies had to be listed in the consumer non-cyclicals sector during the observation period, publish annual reports for the relevant fiscal years, disclose sustainability or ESG-related information, and provide complete financial data needed to calculate firm performance, firm size, and leverage. Companies were excluded if they had incomplete annual reports, unavailable ESG disclosure data, missing financial indicators, or

inconsistent reporting periods. This sampling strategy ensured that the final dataset contained companies with comparable and verifiable information for hypothesis testing.

The research instrument used in this study was a structured secondary data documentation protocol. The protocol was developed to ensure consistency in identifying, recording, and classifying all variables used in the model. ESG disclosure was measured using an ESG disclosure index or ESG score derived from corporate sustainability-related information available in annual reports, sustainability reports, and Refinitiv LSEG data. Financial performance was measured using market-based and accounting-based indicators, namely price-to-book value (PBV), return on assets (ROA), and return on equity (ROE). Firm size was measured using the natural logarithm of total assets, while leverage was measured using the debt-to-equity ratio (DER). These indicators were selected because they are commonly used in corporate finance and sustainability research to represent firm value, profitability, resource capacity, and debt structure.

The validity and reliability of the measurement model were assessed using Partial Least Squares Structural Equation Modeling (PLS-SEM). Because this study used secondary data rather than questionnaire responses, validity testing focused on construct validity, indicator reliability, and measurement consistency. Convergent validity was assessed through outer loading values and average variance extracted (AVE). Indicators were considered valid when the outer loading value exceeded 0.70 and the AVE value exceeded 0.50. Construct reliability was evaluated using Cronbach's alpha, composite reliability rho_a, and composite reliability rho_c, with values above 0.70 indicating acceptable reliability. Discriminant validity was examined using the Fornell–Larcker criterion and the heterotrait–monotrait ratio (HTMT), with HTMT values below 0.90 indicating adequate discriminant validity among constructs. Indicators that did not meet the minimum loading criteria were reviewed and, when necessary, removed from the model to improve measurement validity.

Data collection was conducted through several systematic stages. First, the researchers identified consumer non-cyclicals companies listed on the Indonesia Stock Exchange during the observation period. Second, annual reports, sustainability reports, and financial statements were collected from the official IDX website, company websites, and Refinitiv LSEG database. Third, ESG disclosure data, financial performance indicators, firm size, and leverage were extracted and entered into a structured dataset. Fourth, the dataset was screened to identify missing values, incomplete observations, and inconsistencies in reporting. Fifth, only firm-year observations that met all inclusion criteria were retained for further analysis. This procedure was designed to ensure data accuracy, comparability, and replicability.

The overall research procedure is presented in Figure 1. The flowchart illustrates the sequence of the study, beginning with research design formulation and ending with hypothesis testing and interpretation of findings.

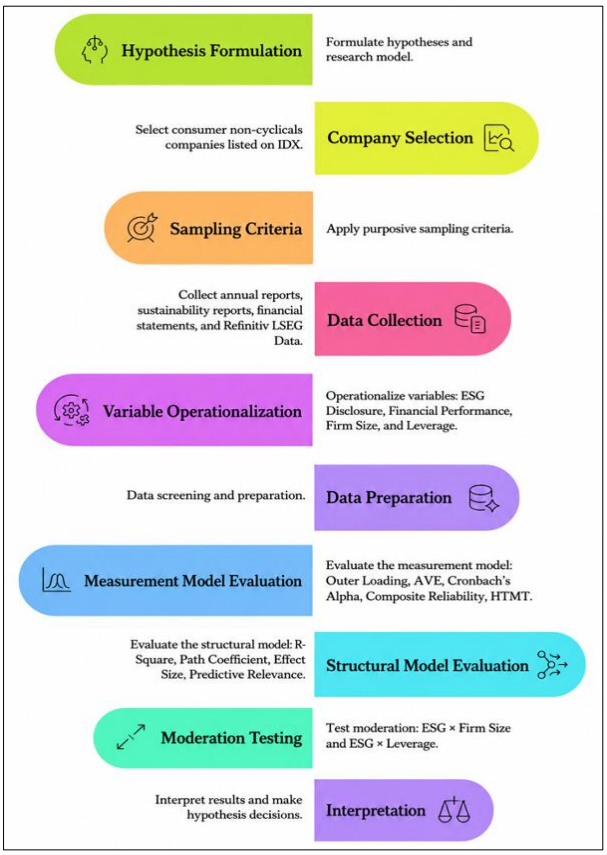

Figure 1. Research Procedure Flowchart

Data analysis was conducted using SmartPLS software with the PLS-SEM technique. PLS-SEM was selected because it is suitable for predictive models, complex relationships, and models that include latent constructs and moderating effects. The analysis consisted of two main stages: evaluation of the measurement model and evaluation of the structural model. In the measurement model stage, convergent validity, discriminant validity, and construct reliability were examined. In the structural model stage, the analysis assessed the coefficient of determination (R^2), path coefficients, t-statistics, p-values, effect size (f^2), and predictive relevance (Q^2). The significance of the direct and moderating effects was tested using the bootstrapping procedure. A hypothesis was accepted when the t-statistic was greater than 1.96 and the p-value was less than 0.05 at the 5% significance level.

Moderation analysis was conducted to examine whether firm size and leverage strengthened or weakened the effect of ESG disclosure on financial performance. The interaction terms were constructed by multiplying ESG disclosure with firm size and ESG disclosure with leverage. The moderating effect was considered significant when the interaction path between the moderating construct and financial performance had a p-value below 0.05. A positive and significant interaction coefficient indicated that the moderator strengthened the relationship between ESG disclosure and financial performance, while a negative and significant coefficient indicated that the moderator weakened the relationship. If the interaction effect was not statistically significant, the variable was interpreted as having no moderating role in the ESG disclosure–financial performance relationship.

This study also considered ethical principles in the use of corporate secondary data. The data used in this research were obtained from publicly available and institutionally recognized sources, including annual reports, sustainability reports, financial statements, IDX publications,

company websites, and Refinitiv LSEG data. Because the study did not involve human participants, informed consent was not required. However, the researchers maintained academic integrity by accurately recording data, avoiding manipulation of findings, and citing all relevant sources used in the development of the research framework and variable measurement. Confidential or unpublished company information was not used in the analysis. All procedures were conducted in accordance with responsible research practices and the principles of transparency, objectivity, and replicability.

RESULTS AND DISCUSSION

Results

This section presents the results of the Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis conducted using SmartPLS. The analysis was carried out in two main stages: measurement model evaluation and structural model evaluation. The measurement model evaluation was conducted to assess indicator validity and construct reliability, while the structural model evaluation was used to test the direct and moderating effects among the variables. The initial model included ESG disclosure, financial performance, firm size, leverage, and the interaction between ESG disclosure and the moderating variable. The results are presented sequentially to show how the final model was obtained and how the hypotheses were tested.

1. Measurement Model Evaluation

The first step in the PLS-SEM analysis was to evaluate the measurement model through the outer loading values of each indicator. The initial model consisted of ESG disclosure as the independent variable, financial performance as the dependent variable, and firm size and leverage as company-specific variables expected to moderate the relationship between ESG disclosure and financial performance. Financial performance was initially measured using three indicators: price-to-book value (PBV), return on assets (ROA), and return on equity (ROE). Firm size was measured using company size, while leverage was represented by the debt ratio. The initial PLS-SEM model is presented in Figure 2.

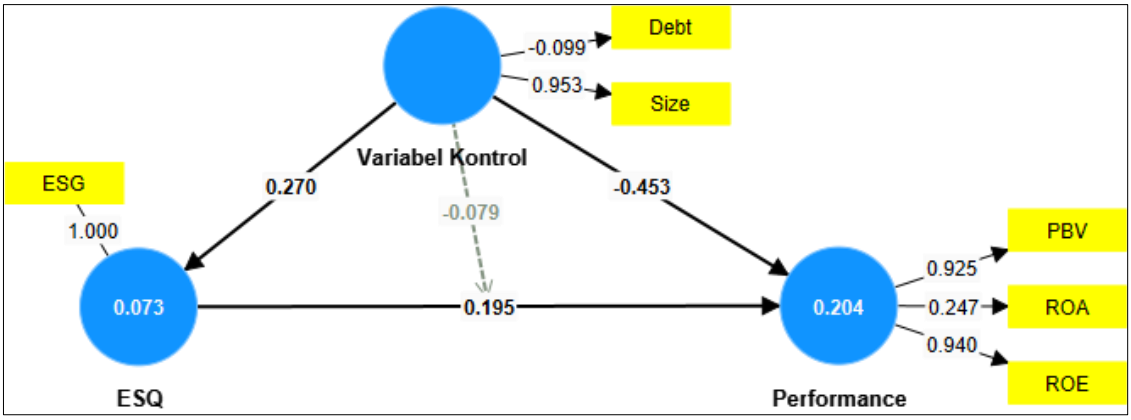

Figure 2. Initial PLS-SEM Model

The initial outer loading results showed that not all indicators met the required convergent validity threshold. ESG disclosure had an outer loading value of 1.000 because it was measured as a single-indicator construct. Size had an outer loading value of 0.953, PBV had an outer loading value of 0.925, and ROE had an outer loading value of 0.940. These values exceeded the recommended threshold of 0.70, indicating that the indicators were valid in representing their

respective constructs. However, the Debt indicator had an outer loading value of -0.099 and ROA had an outer loading value of 0.247. Since these two indicators were below the minimum acceptable value, Debt and ROA were removed from the model.

Table 1. Initial Outer Loading Results

Indicator	Construct	Outer Loading	Decision
ESG	ESG Disclosure	1.000	Retained
Debt	Leverage	-0.099	Removed
Size	Firm Size	0.953	Retained
PBV	Financial Performance	0.925	Retained
ROA	Financial Performance	0.247	Removed
ROE	Financial Performance	0.940	Retained

After removing the indicators that did not meet the convergent validity criteria, the model was re-estimated. The final model retained ESG disclosure, firm size, PBV, ROE, and the interaction term between firm size and ESG disclosure. The elimination of Debt indicates that leverage could not be retained in the final structural model because it failed to satisfy the measurement validity requirement. Similarly, the elimination of ROA indicates that financial performance in the final model was represented only by PBV and ROE. The revised PLS-SEM model after indicator elimination is shown in Figure 3.

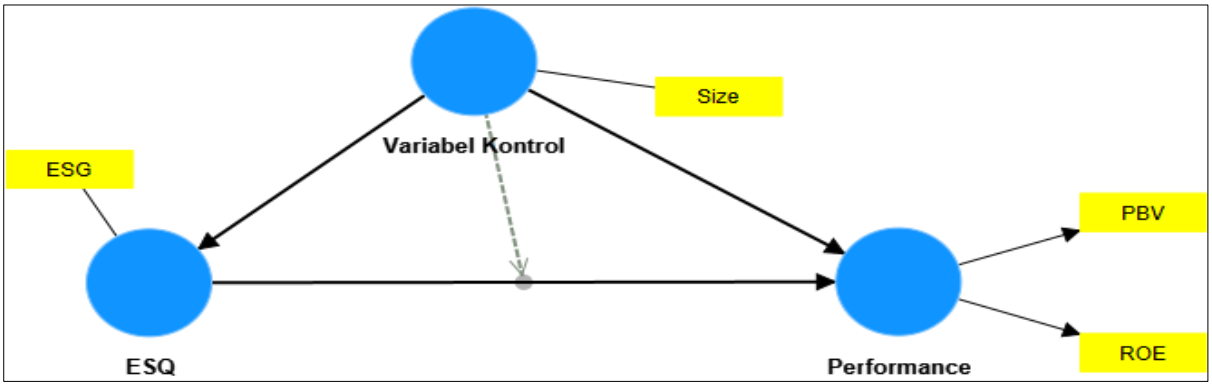

Figure 3. Final PLS-SEM Model after Indicator Elimination

The final outer loading results showed that all retained indicators met the recommended threshold. ESG disclosure had an outer loading value of 1.000, PBV had a loading value of 0.951, ROE had a loading value of 0.943, and firm size had a loading value of 1.000. The interaction construct between firm size and ESG disclosure also had a loading value of 1.000 because it was modeled as a single interaction indicator. These results indicate that the final measurement model satisfied the convergent validity requirement and could be used for further structural analysis.

Table 2. Final Outer Loading Results

Indicator	Construct	Outer Loading	Decision
ESG	ESG Disclosure	1.000	Valid
PBV	Financial Performance	0.951	Valid
ROE	Financial Performance	0.943	Valid
Size	Firms Size	1.000	Valid
Firm Size × ESG	Interaction Term	1.000	Valid

The reliability and convergent validity of the final measurement model were examined using Cronbach's alpha, composite reliability, and average variance extracted. The results showed

that the financial performance construct had a Cronbach's alpha value of 0.885, composite reliability rho_a of 0.888, and composite reliability rho_c of 0.946. These values exceeded the minimum threshold of 0.70, indicating strong internal consistency. In addition, the AVE value was 0.897, which was above the required minimum value of 0.50. This confirms that the retained indicators were able to explain a substantial proportion of the variance in the financial performance construct.

Table 3. Construct Reliability and Convergent Validity

Criteria	Value	Minimum Threshold	Decision
Cronbach's Alpha	0.885	>0.70	Reliable
Composite Reliability rho_a	0.888	>0.70	Reliable
Composite Reliability rho_c	0.946	>0.70	Reliable
Average Variance Extracted	0.897	>0.50	Valid

Overall, the measurement model evaluation confirms that the final model met the basic requirements of validity and reliability. The removal of Debt and ROA improved the quality of the measurement model by retaining only indicators with sufficient loading values. As a result, the subsequent structural model testing focused on ESG disclosure, firm size, financial performance, and the interaction between ESG disclosure and firm size. Therefore, although leverage was initially proposed in the research model, it was not included in the final hypothesis testing because the Debt indicator did not satisfy the measurement validity criterion.

2. Structural Model Evaluation

After confirming the validity and reliability of the measurement model, the next stage was the evaluation of the structural model. The coefficient of determination was assessed using the R-square and adjusted R-square values. The R-square value for ESG disclosure was 0.086, with an adjusted R-square of 0.084. This result indicates that firm size explained 8.6% of the variation in ESG disclosure, while the remaining 91.4% was explained by other factors outside the model. Based on the general interpretation of PLS-SEM, this explanatory power is categorized as weak.

The R-square value for financial performance was 0.134, with an adjusted R-square of 0.127. This means that ESG disclosure, firm size, and the interaction between ESG disclosure and firm size explained 13.4% of the variation in financial performance. The remaining 86.6% was influenced by other variables not included in the model. Although the explanatory power of the model is relatively weak, the model remains useful for testing the direction and statistical significance of the proposed relationships. The relatively low R-square value also suggests that financial performance is influenced by broader factors, such as managerial efficiency, market conditions, capital structure, industry competition, and macroeconomic dynamics.

Table 4. R-Square Result

Endogenous Variable	R-Square	Adjusted R-Square	Interpretation
ESG Disclosure	0.086	0.084	Weak
Financial Performance	0.134	0.127	Weak

3. Hypothesis Testing

Hypothesis testing was conducted using the bootstrapping procedure in SmartPLS. The hypothesis decision was based on the t-statistic and p-value. A relationship was considered statistically significant when the t-statistic was greater than 1.96 and the p-value was lower than 0.05. The results of the hypothesis testing are presented in Table 5.

Table 5. Hypothesis Testing Result

Reliationship	Path	T-Statistic	p-value	Decision
ESG Disclosure → Financial Performance	0.176	4.721	0.000	Significant
Firm Size → ESG Disclosure	0.294	5.061	0.000	Significant
Firm Size → Financial Performance	-0.372	8.149	0.000	Significant
Firm Size × ESG Disclosure → Financial Performance	-0.052	1.256	0.209	Not Significant

The results show that ESG disclosure had a positive and significant effect on financial performance. The path coefficient was 0.176, with a t-statistic of 4.721 and a p-value of 0.000. This finding indicates that companies with stronger ESG disclosure tended to have better financial performance. Since the p-value was below 0.05, the hypothesis stating that ESG disclosure positively affects financial performance was supported. This result suggests that ESG disclosure may contribute to higher market valuation and profitability performance, as reflected by PBV and ROE in the final model.

The results also show that firm size had a positive and significant effect on ESG disclosure. The path coefficient was 0.294, with a t-statistic of 5.061 and a p-value of 0.000. This means that larger firms were more likely to disclose ESG-related information. Larger companies generally have greater resources, broader public visibility, and stronger pressure from stakeholders, which may encourage them to provide more transparent sustainability disclosure. Therefore, firm size is an important factor in explaining variations in ESG disclosure among consumer non-cyclicals companies.

In contrast, firm size had a negative and significant effect on financial performance. The path coefficient was -0.372, with a t-statistic of 8.149 and a p-value of 0.000. This result indicates that larger firm size was associated with lower financial performance in the observed sample. This finding may reflect the possibility that larger companies experience higher operational complexity, administrative costs, and agency costs, which can reduce financial efficiency and market valuation. Thus, although firm size contributes positively to ESG disclosure, it does not necessarily improve financial performance.

The moderation test showed that the interaction between firm size and ESG disclosure had no significant effect on financial performance. The interaction coefficient was -0.052, with a t-statistic of 1.256 and a p-value of 0.209. Since the p-value exceeded 0.05, the moderating effect of firm size was not statistically supported. This means that firm size does not strengthen or weaken the relationship between ESG disclosure and financial performance. Therefore, firm size functions more appropriately as a direct explanatory variable rather than as a moderating variable in the final model.

4. Summary of Results

The results of this study provide four main findings. First, ESG disclosure has a positive and significant effect on financial performance. This indicates that sustainability-related disclosure may contribute to better corporate financial outcomes, particularly when financial performance is reflected through PBV and ROE. Second, firm size has a positive and significant effect on ESG disclosure, suggesting that larger companies tend to provide more extensive ESG information. Third, firm size has a negative and significant effect on financial performance, indicating that larger companies in the sample may face efficiency constraints or operational complexity that affects their financial outcomes. Fourth, firm size does not moderate the relationship between ESG disclosure and financial performance because the interaction effect is statistically insignificant.

These findings show that the direct effect of ESG disclosure on financial performance is empirically supported, whereas the moderating role of firm size is not supported. The results also indicate that leverage could not be tested in the final structural model because the Debt indicator failed to meet the required outer loading criterion during measurement model evaluation. Consequently, the final model supports the importance of ESG disclosure as a factor associated with financial performance, but it does not support the assumption that this relationship depends on firm size or leverage.

Discussion

The main finding of this study indicates that ESG disclosure has a positive and significant effect on corporate financial performance. This result suggests that ESG can no longer be understood merely as a compliance burden or symbolic activity, but rather as a strategic mechanism that has the potential to enhance a company's economic value. Conceptually, ESG disclosure expands the quality of information received by the market, enabling investors to evaluate companies not only from the perspective of short-term profitability but also from their ability to manage environmental, social, and governance risks. This finding supports stakeholder theory, which emphasizes that companies capable of meeting the expectations of various stakeholders tend to gain stronger legitimacy, trust, and support. This result is also consistent with signaling theory, as ESG disclosure can serve as a positive signal regarding the quality of corporate governance, sustainability orientation, and long-term corporate prospect. Thus, the improvement in financial performance, as reflected in PBV and ROE, shows that the market and capital owners tend to respond positively to companies that are more transparent in communicating their sustainability commitments.

More specifically, the positive effect of ESG on financial performance shows that sustainability can create value through two main pathways: the reputational pathway and the risk-efficiency pathway. From a reputational perspective, companies that disclose ESG information more effectively can build an image as responsible entities, thereby increasing the trust of investors, consumers, and regulators. From the perspective of risk efficiency, ESG helps companies demonstrate that they have more mature risk management systems, particularly in responding to regulatory pressures, environmental issues, social demands, and governance risks. This finding is consistent with Kumar and Firoz (2022), Ladnar et al. (2024), Wang et al. (2026), who affirm that ESG may be associated with improved financial performance through both accounting-based and market-based indicators. However, this result differs from several studies that found the effect of ESG to be insignificant or context-dependent, such as Jain and Malhotra (2025), Pratomo et al. (2026).These differences may be explained by variations in sectoral characteristics, performance proxies, ESG maturity levels, and investor sensitivity to sustainability information in each market.

The next finding shows that firm size has a positive and significant effect on ESG disclosure. This means that larger companies tend to have a stronger tendency to disclose environmental, social, and governance information. Theoretically, this result supports the perspectives of legitimacy theory and stakeholder theory because large companies usually have higher public visibility, a broader stakeholder base, and greater regulatory and social pressures. Large companies also generally possess stronger financial resources, reporting systems, and administrative capacity to prepare sustainability reports in a more structured manner. This finding is in line Akhter et al. (2022), Imperiale, Pizzi, and Lippolis (2023), Zimon, Arianpoor, and Salehi (2022), who show that firm size is often an important factor in sustainability reporting

practices. The implication is that ESG disclosure does not merely reflect a company's ethical awareness, but is also influenced by organizational capacity and external pressures attached to corporate scale.

Although firm size has a positive effect on ESG disclosure, this study finds that firm size has a negative and significant effect on financial performance. This finding is interesting because, conventionally, large companies are often assumed to possess resource advantages, better access to financing, and stronger market positions. However, in the context of this study, larger firm size does not automatically lead to higher financial performance. Conceptually, this result can be explained by the possibility of increased organizational complexity, bureaucratic costs, rigid decision-making processes, and higher agency costs in large-scale companies. This finding broadens the discussion in the literature by showing that corporate scale may become a source of efficiency pressure, rather than merely a source of competitive advantage. This result is consistent with the arguments of Dai, Phan Ah Kiaw, and Yap Tat Hiung (2025), Xing et al. (2023), who show that firm size does not always produce better performance if it is not accompanied by effective governance and operational efficiency. Therefore, the practical contribution of this finding is that large companies need to ensure that their asset capacity and resources are truly translated into productivity, efficiency, and market value.

The moderation test results show that firm size does not moderate the relationship between ESG disclosure and financial performance. This means that the positive effect of ESG on financial performance does not depend on whether a company is large or small. This finding provides an important nuance to signaling theory, as the strength of ESG signals in this study appears not to be determined by corporate scale, but rather by the existence and quality of ESG information itself. In other words, both large companies and relatively smaller companies still have the opportunity to obtain financial benefits from ESG disclosure if the information is perceived by the market as credible and relevant. This result differs from Wu et al. (2022), Zengin (2025), who position firm size as a factor that can strengthen the relationship between ESG and firm value or performance in certain contexts. This difference may occur because the consumer non-cyclicals sector has relatively stable demand characteristics, so market responses to ESG may be more influenced by the consistency of sustainability practices than by firm size alone. Thus, this finding extends existing theory by showing that firm size is not always a boundary condition that determines the effectiveness of ESG in improving financial performance.

Another finding that needs to be critically examined is the elimination of Debt or leverage from the final model because it did not meet the outer loading criteria. Methodologically, this indicates that the leverage indicator in the initial model was not strong enough to represent the construct used in the PLS-SEM analysis. Consequently, this study cannot yet provide a strong empirical conclusion regarding the role of leverage as a moderator in the relationship between ESG and financial performance. Theoretically, however, leverage may play an important role because debt structure affects a company's flexibility in financing ESG activities and fulfilling its financial obligations. Several previous studies have shown that leverage may have positive, negative, or insignificant effects on corporate performance, depending on the sector, capital structure, and intensity of financial risk (Arhinful and Radmehr 2023; Ghardallou 2023; Kalash 2021). Therefore, the failure of the Debt indicator in this model should not be interpreted as evidence that leverage is unimportant, but rather as a measurement limitation that needs to be addressed in future research.

The low R-square value in the model also provides room for critical interpretation regarding the explanatory power of the research variables. This model shows that ESG disclosure,

firm size, and the interaction between firm size and ESG explain only a small portion of the variation in financial performance. Substantively, this is reasonable because corporate financial performance is not only influenced by ESG and firm size, but also by managerial efficiency, marketing strategy, cost structure, macroeconomic conditions, industry competition, dividend policy, and market sentiment. In the context of consumer non-cyclicals companies, demand stability may reduce performance sensitivity to a single factor, including ESG disclosure. This finding is consistent with global literature emphasizing that the relationship between ESG and financial performance is often contextual, non-linear, and influenced by a combination of various internal and external corporate factors (Lee and Suh 2022; Linnenluecke 2022; Tutar, Štreimikienė, and Mutlu 2025). Therefore, the contribution of this study does not lie in the high predictive power of the model, but rather in providing evidence that ESG still has a significant direct effect despite the limited explanatory power of the overall model.

Overall, this study positions itself within the global ESG literature by providing evidence from an emerging market, particularly the consumer non-cyclicals sector in Indonesia. The finding that ESG has a positive effect on financial performance supports the view that sustainability can serve as a source of corporate value, rather than merely a reporting obligation. At the same time, the finding that firm size does not moderate the relationship between ESG and financial performance offers a new perspective that the financial benefits of ESG do not always depend on corporate scale. This study also fills a gap in previous research, which has shown inconsistent results regarding the relationship among ESG, firm size, leverage, and financial performance. Theoretically, the findings extend stakeholder theory and signaling theory by showing that ESG can operate directly as a value-creation mechanism, while firm size is more appropriately understood as a factor influencing the level of ESG disclosure rather than as a factor strengthening the ESG–performance relationship. Practically, this finding emphasizes that companies do not merely need to be large and resourceful; they must also ensure that their ESG strategies are implemented credibly, measurably, and relevantly to the creation of long-term financial value.

CONCLUSIONS

This study concludes that ESG disclosure has a positive and significant effect on the financial performance of consumer non-cyclicals companies listed on the Indonesia Stock Exchange. This finding indicates that companies that disclose environmental, social, and governance information more extensively tend to achieve better financial outcomes, particularly when financial performance is reflected through PBV and ROE. From a theoretical perspective, the result supports stakeholder theory and signaling theory, as ESG disclosure functions as a mechanism for building stakeholder trust, reducing information asymmetry, and communicating the company's long-term sustainability orientation to the market. Therefore, ESG disclosure should not be viewed merely as a reporting obligation, but as a strategic factor that can contribute to financial value creation.

The study also found that firm size has a positive and significant effect on ESG disclosure, suggesting that larger companies are more likely to provide broader sustainability-related information due to greater resources, visibility, and stakeholder pressure. However, firm size has a negative and significant effect on financial performance, indicating that larger operational scale does not automatically lead to better financial outcomes. In addition, firm size does not moderate the relationship between ESG disclosure and financial performance. This means that the positive effect of ESG disclosure on financial performance is not dependent on the size of the company.

Meanwhile, leverage could not be tested further in the final structural model because the debt indicator did not meet the required measurement validity criterion.

The findings contribute to the ESG literature by providing empirical evidence from an emerging market context, particularly Indonesia's consumer non-cyclicals sector. Practically, the results imply that companies should improve the quality and consistency of ESG disclosure as part of their long-term value creation strategy, regardless of firm size. Investors may also consider ESG disclosure as a relevant signal when evaluating company performance and sustainability prospects. Future research is encouraged to use broader sectoral coverage, longer observation periods, and alternative leverage measurements to provide a more comprehensive understanding of the relationship among ESG disclosure, firm characteristics, and financial performance.

REFERENCES

Akhter, F., Hossain, M. R., Elrehail, H., Rehman, S. U., & Almansour, B. (2022). Environmental disclosures and corporate attributes, from the lens of legitimacy theory: A longitudinal analysis on a developing country. *European Journal of Management and Business Economics, 32*(3), 342–369. https://doi.org/10.1108/EJMBE-01-2021-0008

Albitar, K., Borgi, H., Khan, M., & Zahra, A. (2023). Business environmental innovation and CO2 emissions: The moderating role of environmental governance. *Business Strategy and the Environment, 32*(4), 1996–2007. https://doi.org/10.1002/bse.3232

Alqahtani, H. A., Alghamadi, M. A., Hussin, H. A. A. A., Ali, N. B. M., & Musa, A. M. H. (2026). The influence of environmental, social, and governance factors on the financial performance of Saudi listed companies. *Sustainability, 18*(6), 2976. https://doi.org/10.3390/su18062976

Aluchna, M., Roszkowska-Menkes, M., Kamiński, B., & Bosek-Rak, D. (2022). Do institutional investors encourage firm to social disclosure? The stakeholder salience perspective. *Journal of Business Research, 142*, 674–682. https://doi.org/10.1016/j.jbusres.2021.12.064

Arhinful, R., & Radmehr, M. (2023). The effect of financial leverage on financial performance: Evidence from non-financial institutions listed on the Tokyo stock market. *Journal of Capital Markets Studies, 7*(1), 53–71. https://doi.org/10.1108/JCMS-10-2022-0038

Arshad, R., Audi, M., & Ali, A. (2025). Environmental disclosure and financial performance: Evidence from environmentally sensitive sectors across global markets. *Policy Journal of Social Science Review, 3*(8), 383–399.

Carnini Pulino, S., Ciaburri, M., Magnanelli, B. S., & Nasta, L. (2022). Does ESG disclosure influence firm performance? *Sustainability, 14*(13), 7595. https://doi.org/10.3390/su14137595

Chan, E. Y. (2026). Moral signaling in startups: How ESG claims shape stakeholder judgments and ethical legitimacy. *Journal of Business Ethics, 203*(2), 297–311. https://doi.org/10.1007/s10551-025-06039-0

Chen, J., Yang, Y., & Yu, J. (2024). Task complexity, organizational size, and performance: An examination of the U.S. state budget agencies. *Public Management Review, 26*(4), 837–862. https://doi.org/10.1080/14719037.2022.2116093

Chouaibi, J., Benmansour, H., Ben Fatma, H., & Zouari-Hadiji, R. (2023). Does environmental, social, and governance performance affect financial risk disclosure? Evidence from European ESG companies. *Competitiveness Review, 34*(6), 1057–1076. https://doi.org/10.1108/CR-07-2023-0181

Dai, J., Phan Ah Kiaw, J., & Yap Tat Hiung, E. (2025). Is some uncertainty better than none? Nonlinear relationships between climate policy uncertainty and corporate green performance. *International Review of Economics & Finance, 102*, 104336. https://doi.org/10.1016/j.iref.2025.104336

Ellili, N. O. D. (2022). Impact of ESG disclosure and financial reporting quality on investment efficiency. *Corporate Governance, 22*(5), 1094–1111. https://doi.org/10.1108/CG-06-2021-0209

Ghardallou, W. (2023). The heterogeneous effect of leverage on firm performance: A quantile regression analysis. *International Journal of Islamic and Middle Eastern Finance and Management, 16*(1), 210–225. https://doi.org/10.1108/IMEFM-12-2021-0490

Hamza, S., & Jarboui, A. (2024). ESG performance and disclosure quality: Does a well-balanced board of directors matter when impression management occurs? *EuroMed Journal of Business, 20*(3), 698–720. https://doi.org/10.1108/EMJB-05-2023-0140

He, H., Chen, Y., Guo, R., He, L., & Wan, H. (2025). Cost of vagueness: Stakeholders' responses to firms' ESG information. *Journal of Business Ethics, 202*(3), 543–566. https://doi.org/10.1007/s10551-025-06001-0

Huang, J., Hu, P., Wang, D. D., & Wang, Y. (2025). The double signal of ESG reports: Readability, growth, and institutional influence on firm value. *Sustainability, 17*(6), 2514. https://doi.org/10.3390/su17062514

Hutauruk, M. R. (2024). The effect of R&D expenditures on firm value with firm size moderation in an Indonesia palm oil company. *Cogent Business & Management, 11*(1), 2317448. https://doi.org/10.1080/23311975.2024.2317448

Imperiale, F., Pizzi, S., & Lippolis, S. (2023). Sustainability reporting and ESG performance in the utilities sector. *Utilities Policy, 80*, 101468. https://doi.org/10.1016/j.jup.2022.101468

Jain, P., & Malhotra, P. (2025). Does ESG impact corporate performance in environmentally sensitive and non-sensitive industries? A dynamic panel approach. *Benchmarking: An International Journal, 33*(6), 1908–1943. https://doi.org/10.1108/BIJ-12-2024-1087

Kaakeh, A., & Kaakeh, M. (2025). Building trust for sustainable disclosure: The effect of social capital on sustainable disclosure and the moderating role of corruption. *Business Strategy and the Environment, 34*(8), 9785–9807. https://doi.org/10.1002/bse.70091

Kalash, I. (2021). The financial leverage–financial performance relationship in the emerging market of Turkey: The role of financial distress risk and currency crisis. *EuroMed Journal of Business, 18*(1), 1–20. https://doi.org/10.1108/EMJB-04-2021-0056

Khalil, M. A., Khalil, S., & Sinliamthong, P. (2024). From ratings to resilience: The role and implications of environmental, social, and governance (ESG) performance in corporate solvency. *Sustainable Futures, 8*, 100304. https://doi.org/10.1016/j.sftr.2024.100304

Kim, J., & Kang, H. (2026). Bureaucratic burden or administrative capacity? Administrative intensity and fiscal performance of local governments. *Public Management Review, 28*(3), 580–601. https://doi.org/10.1080/14719037.2024.2447314

Kumar, P., & Firoz, M. (2022). Does accounting-based financial performance value environmental, social and governance (ESG) disclosures? A detailed note on a corporate sustainability perspective. *Australasian Accounting, Business and Finance Journal, 16*(1). https://doi.org/10.14453/aabfj.v16i1.4

Ladnar, N., Schätzlein, M., Palomo, R., & Zureck, A. (2024). Does ESG performance influence accounting- and market-based firm risk? *International Journal of Sustainable Economy, 16*(4), 383–402. https://doi.org/10.1504/IJSE.2024.141705

Landi, G. C., Iandolo, F., Renzi, A., & Rey, A. (2022). Embedding sustainability in risk management: The impact of environmental, social, and governance ratings on corporate financial risk. *Corporate Social Responsibility and Environmental Management, 29*(4), 1096–1107. https://doi.org/10.1002/csr.2256

Lee, M. T., & Suh, I. (2022). Understanding the effects of environment, social, and governance conduct on financial performance: Arguments for a process and integrated modelling approach. *Sustainable Technology and Entrepreneurship, 1*(1), 100004. https://doi.org/10.1016/j.stae.2022.100004

Linnenluecke, M. K. (2022). Environmental, social and governance (ESG) performance in the context of multinational business research. *Multinational Business Review, 30*(1), 1–16. https://doi.org/10.1108/MBR-11-2021-0148

Mahmood, A., Mehmood, A., Terzani, S., De Luca, F., & Djajadikerta, H. G. (2025). The effect of ESG disclosure on firm value in the European context. *Management Decision, 64*(7), 3023–3054. https://doi.org/10.1108/MD-10-2024-2480

McGahan, A. M. (2023). The new stakeholder theory on organizational purpose. *Strategy Science, 8*(2), 245–255. https://doi.org/10.1287/stsc.2023.0184

Menla Ali, F., Wu, Y., & Zhang, X. (2024). ESG disclosure, CEO power and incentives and corporate risk-taking. *European Financial Management, 30*(2), 961–1011. https://doi.org/10.1111/eufm.12447

Moharram, A. H., Alahdal, W. M., Adnan, S. M., Hussainey, K., & Hashim, H. A. (in press). The effect of ESG disclosure on firm performance: Does earnings management matter? *Business Strategy and the Environment*. https://doi.org/10.1002/bse.70669

Pratomo, W. A., Warokka, A., Hasibuan, W. S., Ismail, A. G., Sirojuzilam, & Aqmar, A. Z. (2026). Integrating ESG, innovation, and institutional dynamics: Evidence from cross-country and sectoral differences in ASEAN firms. *Sustainability, 18*(11), 5511. https://doi.org/10.3390/su18115511

Saleh, M. W. A., Eleyan, D., & Maigoshi, Z. S. (2022). Moderating effect of CEO power on institutional ownership and performance. *EuroMed Journal of Business, 19*(3), 442–461. https://doi.org/10.1108/EMJB-12-2021-0193

Shah, M. U., & Guild, P. D. (2022). Stakeholder engagement strategy of technology firms: A review and applied view of stakeholder theory. *Technovation, 114*, 102460. https://doi.org/10.1016/j.technovation.2022.102460

Shahid, A. (2023). Exploring corporate transparency and stakeholder trust. *Finance & Audit Research Archive Letters, 2*(2), 125–141.

Shalhoob, H. (2025). ESG disclosure and financial performance: Survey evidence from accounting and Islamic finance. *Sustainability, 17*(4), 1582. https://doi.org/10.3390/su17041582

Su, W., Zhang, M., & Han, P. (2025). The impact of negative ESG disclosure on firm value: Enhancing or diminishing? *SAGE Open, 15*(4). https://doi.org/10.1177/21582440251383232

Tutar, H., Štreimikienė, D., & Mutlu, H. T. (2025). The relationship between ESG and financial performance in global firms: A multidimensional study across sectors and regions for the period 2015–2025. *Corporate Social Responsibility and Environmental Management, 32*(6), 8280–8294. https://doi.org/10.1002/csr.70136

Wang, H., Jiao, S., & Ma, C. (2024). The impact of ESG responsibility performance on corporate resilience. *International Review of Economics & Finance, 93*, 1115–1129. https://doi.org/10.1016/j.iref.2024.05.033

Wang, Y., Shah, M. H., Wang, Y., & Ullah, I. (2026). Standardized sustainability reporting, ESG performance, and market-based valuation in Chinese listed firms. *Sustainability, 18*(2), 920. https://doi.org/10.3390/su18020920

Wardhana, A. A., & Hersugondo. (2025). Environmental, social, and governance disclosure effects on firm value, profitability, and capital structure in Indonesia. *Economic and Business Horizon, 4*(2), 431–448.

Widaryanti, W., Luhgiatno, L., & Sitawati, R. (2026). Does sustainability pay? Evidence on the profitability-mediated connection between ESG reporting, audit quality, and market value. *Green and Low-Carbon Economy, 4*(2), 222–233. https://doi.org/10.47852/bonviewGLCE62027249

Wu, S., Li, X., Du, X., & Li, Z. (2022). The impact of ESG performance on firm value: The moderating role of ownership structure. *Sustainability, 14*(21), 14507. https://doi.org/10.3390/su142114507

Xing, X., Chen, T., Yang, X., & Liu, T. (2023). Digital transformation and innovation performance of China's manufacturers: A configurational approach. *Technology in Society, 75*, 102356. https://doi.org/10.1016/j.techsoc.2023.102356

Zengin, B. (2025). Does size matter? Exploring the moderating role of firm size in the ESG–profitability relationship. *Gazi İktisat ve İşletme Dergisi, 11*(3), 268–283. https://doi.org/10.30855/gjeb.2025.11.3.005

Zimon, G., Arianpoor, A., & Salehi, M. (2022). Sustainability reporting and corporate reputation: The moderating effect of CEO opportunistic behavior. *Sustainability, 14*(3), 1257. https://doi.org/10.3390/su14031257