JURNAL BISNIS DAN AKUNTANSI
Vol. 27, No. 2, December 2025, Page 233-244
Accreditation of Sinta 2 SK No. 72/E/KPT/2024

P-ISSN: 1410 – 9875
E-ISSN: 2656 – 9124
http://jurnaltsm.id/index.php/JBA

THE INTERPLAY BETWEEN ESG CONTROVERSIES AND INNOVATION ON FIRM FINANCIAL PERFORMANCE: EVIDENCE FROM INDONESIA

[1]SINTIA FARACH DHIBA*
[2]DEWI IZZATUL LAILATIL MUTHOHIROH
[1]RIZKY ERIANDANI

[1]Universitas Surabaya, Jl Raya Kalirungkut, Surabaya, Indonesia
[2]University of Melbourne, Grattan Street, Parkville Victoria, Australia
sintiafarach@staff.ubaya.ac.id

Received: July 24, 2025; Revised: September 8, 2025; Accepted: September 26, 2025

Abstract: *This study aims to examine the impact of Environmental, Social, and Governance (ESG) controversies and innovations on firm financial performance. A total of 522 firm-year observations of Indonesia's publicly listed non-financial companies from 2019 to 2023 were collected using purposive sampling. Data is generated from Refinitiv Eikon Database and analyzed through multiple linear regression (ordinary least squares). The findings reveal that ESG non-controversy has a consistent and significant positive effect on firm value, underscoring its role in preserving legitimacy and signaling firm's quality. ESG innovation also shows a positive association with firm value in the full sample but loses statistical significance in sub-sample analyses split by firm size, suggesting its signaling value may be context-dependent. Firms are advised to actively minimize controversies while fostering innovative approaches to ESG initiatives, as these factors are shown to play a critical role in increasing financial performance. In contrast to existing Indonesian ESG research that aggregates ESG metrics into a single score, this study examines ESG controversies and ESG innovation as separate dimensions and concurrently exploring their impacts on firm value through the frameworks of signalling and legitimacy theory. The results offer practical insights for managers aiming to integrate ESG into corporate strategy and for investors evaluating ESG signals in valuation decisions.*

Keywords: ESG Controvery, ESG Innovation, Firm Performance, Refinitiv, Sustainability Reporting

INTRODUCTION

Environmental, Social, and Governance (ESG) practices have garnered heightened scrutiny in recent years as stakeholders desire more accountability from organisations. Financial investors appreciated sustainability initiatives by allocating substantial investments to assets with an established trajectory towards ESG standards in recent years (Khemir et al. 2019).

Global Sustainable Investment Alliance (GSIA) reveals that the Global ESG Investing market has surged by 55%, rising from USD 22.8 trillion in 2016 to USD 35.3 trillion in 2020 (GSIA 2021). A study of 150 publicly traded S&P 500 companies revealed that those demonstrating superior ESG performance displayed enhanced financial performance (assessed by return-on-capital-employed) and elevated market valuation (indicated by Tobin's Q) relative to their industry counterparts (Ademi and Klungseth

2022). Thus, it is important to learn the interplay factors of ESG toward the financial performance.

Studies on the influence of ESG controversies on corporate valuation yield inconsistent findings (Ahmad et al. 2021; Al-Shaer et al. 2023; Chen and Xie 2022; Elamer and Boulhaga 2024; Friede et al. 2015). In the Indonesian context, accounting research on the determinants of firm value related to ESG aspects predominantly focuses on aggregating ESG into a single score, such as ESG performance (Makhdalena et al. 2023) and ESG risk (Eriandani and Winarno 2023; Yudhanto and Simamora 2023). Despite the aggregation provide a convenient and standardized benchmark, it also may overlook the unique ways in which different ESG dimensions influence firm performance. This gap underscores the need for broader research into how certain ESG aspect influence firm value in Indonesia. This granularity matters, especially in emerging markets where ESG practices are heterogeneous and evolving (Qian et al. 2021; Tilt 2016). Indonesia context is used by this study as it offers the dynamic case of emerging countries with stringent ESG disclosure requirements since it requires all public companies to disclose sustainability reporting through regulation issued by Financial Services Authority of Indonesia (Otoritas Jasa Keuangan [OJK]), POJK 51/2017.

This study focuses on two often underexplored dimensions: ESG innovation and ESG non-controversy. These dimensions are selected for their theoretical and practical significance. From the perspective of signaling theory, both ESG innovation and the absence of controversy serve as credible signals to investors about firm quality and future prospects (Connelly et al. 2010). Additionally, legitimacy theory suggests that firms engage in forward-looking ESG activities and avoid controversies to maintain societal approval and secure their license to operate (Suchman 1995). In this regard, ESG innovation enhances normative legitimacy by contributing to broader societal goals, while non-controversial behavior supports pragmatic legitimacy by minimizing harm and aligning with stakeholder expectations (Deegan 2002).

Research on the influence of ESG controversies on firm value presents inconclusive result. Aouadi and Marsat (2018) found that ESG controversies can increase firm value, as heightened visibility may lead to greater public recognition. Similarly, Melinda & Wardhani (2020) observed a positive impact in Asia, suggesting that ESG controversy signals corporate transparency and accountability. In contrast, Elamer & Boulhaga (2024), using a global dataset, and Wu et al. (2023) in China context, found that ESG controversies negatively affect firm value, though strong corporate governance can mitigate this effect.

Furthermore, research of ESG innovation on firm financial performance also yielded mixed results. Casciello et al. (2024) found that green innovation negatively affects firm performance, as it raises investor concerns about capital allocation decisions. Conversely, other studies indicate a positive link between ESG innovation and firm value (Cheng et al. 2024; Zhang et al. 2020). Cheng et al. (2024) reported that companies investing in green innovation or sustainable business practices experience financial gains through sales growth and cost efficiency. Similarly, Zhang et al. (2020) found that in China, ESG-driven innovation positively influences financial performance.

Despite the growing body of research on ESG, limited studies have examined how ESG controversies and innovation simultaneously influence firm corporate outcomes. This study seeks to fill this gap by exploring the relationships between ESG controversies, ESG innovation, and firm performance. By disentangling the contributions of ESG controversy and ESG innovation, the findings of this study have significant theoretical and practical implications. Understanding the dual impact of controversies and innovations on ESG performance can guide strategies for mitigating risks and leveraging opportunities in sustainable business practices. Moreover, this research contributes to the theoretical discourse on the role of ESG and firm performance.

This study uses the signaling theory and legitimacy theory to understand impact of ESG performance toward financial outcomes. Signalling theory originates from (Akerlof 1970) research on asymmetric information. It underscores the challenge investors face in differentiating between high and low-quality firms, despite managers having superior knowledge regarding the firm's quality, leading high-quality corporations to often underprice fresh issues as an indication of their true value (Spence 1973). Meanwhile, legitimacy theory emphasizes a firm's necessity to run within the norms and expectations of its social context (Suchman 1995). ESG activities allow firms to gain or maintain legitimacy by aligning with societal values (Deegan 2002).

ESG Non-Controversy and Financial Performance

ESG controversies reflect the existence of the involvement of firms toward scandal related to ESG problems covered by global media such as governance scandals, environmental violations, or human rights abuses (Melinda and Wardhani 2020; Refinitiv 2024). Such controversies can undermine stakeholder trust and negatively impact financial performance (Elamer & Boulhaga 2024). These controversies, frequently present in public discourse and media, impose pressure on a firm's reputation and market performance (Li et al. 2019)

Signalling theory posits that corporations utilise observable indicators to communicate unobservable attributes to stakeholders (Connelly et al. 2024). In the context of ESG, firms that avoid controversies send a positive signal of good internal governance and risk management. This reduces information asymmetry between the firm and investors, thereby reducing perceived investment risk. According to Legitimacy Theory, firms operate within a social contract that requires them to conform to societal expectations in order to maintain their legitimacy for ensuring long-term welfare (Deegan 2002; Suchman 1995). One of way firms to preserve legitimacy is by avoiding ESG controversies.

Previous research, such as, Elamer & Boulhaga (2024), using global dataset, found that ESG controversies could have negative impact on firm value, moderated by governance factors. This finding shows similar result as Wu et al. (2023) in China case, that ESG controversies has negative impact on firm value, and the effect can be mitigated with corporate governance. In this study, we maintain the reverse score of ESG controversy from Refinitiv Eikon database. This research uses opposite score of ESG controversy, thus we create a new variable of ESG-non controversy, which higher score means the absence of controversy. Thus, based on the empirical evidence, we hypothesize:

H_1: ESG non-controversy is positively impact a firm's financial performance

ESG Innovation and Financial Performance

ESG innovation encompasses proactive efforts by companies to develop new products, services, or practices that promote sustainability and ethical governance. This aspect is crucial for addressing environmental challenges, improving social welfare, and maintaining a competitive edge in the market (Chouaibi et al. 2022).

According to signaling theory, such forward-looking actions send a strong signal of long-term orientation, managerial competence, and strategic foresight (Zhao et al. 2024). Particularly in sectors where ESG concerns are salient, innovative ESG practices may differentiate firms as industry leaders. From a legitimacy perspective, ESG innovation can help firms adapt to evolving stakeholder expectations and preempt institutional pressures (Chen 2024). By going beyond compliance, firms can construct legitimacy and be perceived as "change agents" in sustainability transitions (Gallagher et al. 2020). Empirical evidence increasingly demonstrates the effects of ESG initiatives on innovation and financial performance, indicating that organisations that invest in research and development typically achieve superior ESG outcomes (Tan et al. 2024; Zhang et al. 2020).

Empirical studies provide evidence of a positive relationship between ESG innovation and firm value (Cheng et al., 2024; Zhang et al., 2020). Cheng et al. (2024) found that firms investing in green innovation or sustainable business practices has positive impact on firm financial performance. This will happen followed by sales growth and cost efficiency. Similarly, in China context, effect of innovation on ESG performance has positive impact on financial performance (Zhang et al., 2020). Thus, based on the empirical evidence, we hypothesize:

H_2: ESG innovation is positively impact firm's financial performance

METHOD

This study employs a quantitative approach to investigate the causal relationship between ESG Non-Controversy, ESG innovation and financial performance. This research use regression analysis model for hypothesis testing. Data for this study were obtained from the Thomson Reuters Eikon database (also known as Refinitiv), which is recognized as one of the most comprehensive ESG databases in the industry (Al-Shaer et al., 2023; Elamer & Boulhaga, 2024).

The sample of this study comprises all non-financial companies listed on the Indonesia Stock Exchange (IDX) between 2019 and 2023. Data were sourced from the Refinitiv Eikon database, which provides standardized ESG and financial information. The sampling process employed purposive sampling with the following criteria: (1) companies must be publicly listed for the entire observation period; (2) ESG non-controversy and ESG innovation indicators, along with financial variables, must be available in the database to ensure robustness of data; and (3) firms from the financial sector (banks, insurance, and other financial institutions) were omitted due to their distinctive regulatory environment. After applying these criteria and removing firms with incomplete data, the final dataset comprised 522 firm-year observations.

The research focuses on examining firm value as a dependent variable. This study assesses firm value through Tobin's Q, taking into account data availability and existing scholarly methods. This metric is widely used to assess firm value (Al-Shaer et al. 2023; Elamer and Boulhaga 2024; Nirino et al. 2021). This metric is determined by the sum of a firm's market capitalisation and total debt, divided by its total assets. Higher levels of Tobin's Q score indicates that a corporation is valued more favourably by investors, signifying strong financial performance.

There are two independent variables for this study: ESG non-controversy and ESG Innovation. ESG non-controversies measures the absence of company's exposure to 23 environmental, social, and governance controversies topics and adverse events reported in worldwide media. (Refinitiv 2024). Some example of controversies are categorized into community (e.g. anti-competition controversy), human rights (e.g. child labour), management (e.g. management compensation), product responsibility (e.g. responsible marketing and R&D), resource use, shareholder, and workforce. The ESG controversy score is an essential indicator in assessing a firm's involvement and performance in ESG-related domains (Aouadi and Marsat 2018; Elamer and Boulhaga 2024; Li et al. 2019; Nirino et al. 2021; Melinda and Wardhani 2020).

Developed by Refinitiv, the ESG non-controversy score ranges from 0 to 1 and reflects the extent to which a company is free from ESG-related controversies. Firms with no recorded controversies are assigned the maximum value, while industry group benchmarking and severity-based weighting are used to adjust for market capitalization bias, as larger firms typically attract greater media attention. The weighted values are benchmarked within the relevant industry group, sorted from less severe controversies ranked, and transformed into a percentile rank. A higher ESG non-controversy score therefore indicates the absence of recent conflicts or incidents that could adversely affect a company's overall ESG rating (Refinitiv, 2024).

Meanwhile, ESG innovation is captured using the Environmental Innovation Category Score provided by Refinitiv. The environmental innovation category score indicates a firm's ability to diminish environmental costs and burdens for its customers, consequently generating new market opportunities through innovative environmental technology, processes, or eco-designed products (Refinitiv, 2024). This study operationalized the variable using dummy variable, where 1 indicates the firm conducted ESG-related innovation and 0 indicates no innovation activity. This approach follows methodologies used in prior studies (Cheng et al. 2024).

To ensure a comprehensive analysis, this study incorporates several control variables: Firm size, Return on Assets, and Leverage (Melinda and Wardhani 2020). Firm size (FSIZE) is represented as the natural logarithm of total assets, while Return on Assets (ROA), calculated by dividing net income by total assets, serves as a measure of the firm's profitability. These variables are crucial, as larger and more profitable firms tend to be more highly valued by shareholders. Additionally, leverage (LEV), defined as the ratio of total debt to total assets. These control variables enable a more detailed assessment of the firm's overall financial health. Table 1 summarizes all variables and each of its measurements.

The research model is estimated using multiple linear regression with firm-year observations, as follows:

$$FV_{it} = \beta_0 + \beta_1\, ESGNonCont_{it} + \beta_2\, ESGInnov_{it} + \beta 3\, FSIZE_{it} + \beta_4\, ROA_{it} + \beta_5\, LEV_{it} + \varepsilon_i$$

Table 1. Variables and Measurement

Variable Name	Measurement	Reference
Firm Value	Measured by TobinsQ, the sum of market capitalization and total debt divided by total assets (Ratio)	(Aouadi and Marsat 2018; Elamer and Boulhaga 2024; Li et al. 2019; Nirino et al. 2021; Melinda and Wardhani 2020).
ESG Non-Controversy	Absence of ESG controversies of issue, which range the score from 0 to 1, which 1 means the nonexistence of controversy (Ratio)	(Aouadi & Marsat, 2018; Elamer & Boulhaga, 2024; Li et al. 2019; Nirino et al., 2021).
ESG Innovation	A dummy variable of the existence of innovation conducted by the company, which 1 means the presence of innovation (Nominal)	(Cheng et al. 2024)
Firm Size	Natural logarithm of total assets (Ratio)	(Melinda and Wardhani 2020)
Return on Assets	Net Income divided by Total assets (Ratio)	(Melinda and Wardhani 2020)
Leverage	Ratio of total debt to total assets (Ratio)	(Melinda and Wardhani 2020)

From the above model specification, FVit denotes the firm value of firm *i* in year *t*, measured by Tobin's Q. $ESGNonCont_{it}$ is used to measure the absence of corporate controversies, $ESGInnov_{it}$ means firm's score of ESG Innovation. Simultaneously, the control variable denoted as $FSIZE_{it}$ represents the logarithm of total assets, ROA_{it} signifies return on assets, and LEV is quantified by the total debt to total assets ratio.

RESULTS

Descriptive Statistics

Table 2 provides an extensive overview of the descriptive statistics for each variable analysed in the study. Each metric offers a representative summary, emphasising the fundamental trend and variability that characterise the nature and behaviour of the dataset.

Firm value (FV) varies from 0.0004 to 51.27, with a mean of 1.54 and a standard deviation of 3.14. This isolated the considerable variability of the sampled data. The ESG Controversy Score, which quantifies the degree of disputes associated with firms' ESG policies, has a mean of 0.968 and a low standard deviation of 0.122, indicating that the majority of firms in the sample exhibit minimal controversy, as a perfect score of 1 signifies the absence of any issue. The average ESG Innovation score of 0.2150 indicates a relatively low proportion of organisations engaging in sustainability-related innovation activities. Approximately 41% of the data pertains to the innovation processes in ESG.

The control variables provide more context regarding the firms. The natural logarithm of total assets, representing business size, has a mean of 29.3072 and a standard deviation of 2.3794, indicating considerable variability in firm sizes within the sample. The mean Return on Assets (ROA) is -0.0154, with a standard deviation of 0.6325, indicating that certain enterprises in the sample encountered negative profitability. Ultimately, leverage, an indicator of financial risk, exhibits significant variability, with a mean of 1.2491 and a standard deviation of 8.6955, while the maximum value attains 117.3843, signifying the presence of highly leveraged enterprises within the dataset.

Regression Results

Table 3 presents the findings of the regression analysis conducted to evaluate the hypothesis. The model demonstrates significant explanatory power, with an adjusted R-squared value of 0.566, indicating that 56.6% of the variation in firm value is accounted for by the included predictors. The adjusted R-squared value of 0.566 accounts for the number of predictors in the model, confirming its reliability.

Table 2. Descriptive Statistics Result

Variables	N	Min	Max	Mean	Std. Deviation
FV	552	0.0004	512.713	15.384	31.406
ESGNonCont	552	0.0924	1.000	0.9685	0.1220
ESGInnovation	552	0.0000	1.000	0.2150	0.2998
FSize	552	22.4420	34.3675	29.3072	2.3794
ROA	552	-94.982	0.5886	-0.0154	0.6325
Leverage	552	0.0023	117.3843	12.491	86.955

Additionally, The F-test results (144.714) with one percent significance confirms the validity of our model.

The ESG Non-Controversies variable demonstrates a positive and statistically significant relationship with firm value (β=2.152, p<0.001). This supports the first hypothesis that ESG non-controversy positively impact firm's financial performance. The positive coefficient suggests that firms with higher non-controversy scores (i.e., fewer ESG controversies) tend to achieve higher market valuations.

Similarly, the ESG Innovation variables, which captures firms with innovation-oriented ESG practices, shows a positive and significant relationship with firm financial performance (β=0.402, p<0.01). Thus it supports the second hypothesis, indicating that firms actively pursuing innovative ESG initiatives are rewarded in terms of market valuation. These results align with the growing investor emphasis on sustainability and corporate responsibility. Firms perceived as forward-looking and environmentally or socially innovative may attract investments from socially conscious stakeholders.

Our model research also embraced some control variable to ensure a holistic understanding of the examined relationships: return on assets (ROA), firm size, and leverage. ROA, measured as firm profitability, has strong positive impact on firm value (β= 9.753, p<0.01). A high ROA reflects efficient resource use and profitability, which investors prioritize as an indicator of a firm's operational effectiveness and potential for sustained growth (Ardiansyah 2020; Aydoğmuş et al. 2022; Wijaya and Radianto 2023).

In contrast, firm size demonstrates a negative and statistically significant correlation with firm value (β =−0.353, p<0.05). This outcome indicates that larger enterprises encounter difficulties in achieving elevated market valuations, attributable to decreased marginal returns to scale and more scrutiny from investors and authorities. Additionally, these firms may be perceived as less agile and slower to adapt to market changes compared to smaller, more dynamic competitors. This result suggests that larger firms must focus on innovation, strategic growth, and ESG integration to counteract these limitations and sustain their market value. Larger firms may face diminishing returns to scale or higher agency costs. Leverage also plays a significant role in explaining firm value, with a positive and statistically significant coefficient (β=0.883,p<0.001).

Table 3. Regression Results

Variables	Coefficient (β)	Std. Error	Stdzd Coeff. Beta	t-Value
Constant	8.669***	1.299		6.674
ESG Non-Controversy	2.152***	0.729	0.084	2.953
ESG Innovation	0.402**	0.179	0.063	2.245
ROA	9.753***	0.645	1.964	15.127
Leverage	0.885***	0.046	2.450	19.131
Size	-0.353***	0.040	-0.267	-8.883
N = 552				
Adj. R Square = 0.566				
F-value = 144.714***				

*Note: *, **, *** indicate significant relationships at the 10%, 5%, and 1% threshold, respectively*

This suggests that firms with higher debt levels are perceived as taking calculated risks that enhance value to amplify the return (Ardiansyah 2020). Leverage can serve as a signal to investors that the firm is devoted to growth and is willing to use debt strategically to finance profitable ventures. However, it is crucial to note that excessive leverage can lead to financial distress, particularly in adverse economic conditions. Therefore, the ability to balance debt and operational efficiency is essential for maximizing market value while minimizing risk.

However, the effect size of ESG Controversies and ESG Innovation is small in the model, with standardized coefficient beta of 0.085 and 0.064, respectively. It is far lower than ROA which stand at 1.961. It implies that while ESG aspects, such as ESG controversy and ESG innovation is a valuable signal, it operates as a complementary factor to more traditional financial metrics. This highlights the need for firms to integrate ESG innovation as part of a broader strategy that emphasizes profitability and operational efficiency.

This result underscores the fundamental importance of financial performance in driving market valuations. ROA reflects the efficiency of a firm use its resources to generate profits, and higher profitability signals operational effectiveness and stability, which are highly attractive to investors. The magnitude of this effect highlights that profitability remains the cornerstone of firm valuation, even in a market increasingly influenced by non-financial metrics like ESG factors. This finding reinforces the argument that while ESG considerations are important, they cannot fully compensate for weak financial performance.

Additional Analysis: Robustness Test

To assess the consistency of our findings, we conducted a robustness analysis by splitting the sample into large and small firms. Table 4 presents the results of a split-sample robustness check based on firm size. In both subsamples, ESG Non-Controversy remains a significant positive predictor of financial performance, confirming its robustness. This suggests that the avoidance of ESG controversies consistently contributes to firm value, regardless of firm size. In contrast, ESG innovation loses its statistical significance in both size-based subsamples, despite showing a positive and significant relationship in the full sample.

Discussion

This study's findings underscore the complex interplay of ESG controversy, ESG innovation, and firm performance. It demonstrates a constant and substantial positive correlation between ESG Non-Controversy and financial performance, while ESG Innovation only

Table 4. Robustness Analysis

	Big Firm Size		Small Firm Size	
Variables	Coefficient (β)	t-value	Coefficient (β)	t-value
Constant	-2.493***	-2.302	-1.065***	-.965
ESG Non-Controversy	2.282***	2.137	2.259***	1.992
ESG Innovation	0.200	1.154	0.220	0.610
Leverage	1.005***	2.302	7.864***	8.108
ROA	13.564***	13.570	.770***	11.035
N	305		237	
Adj. R Square	0.383		0.565	
F-value	48.933***		79.155***	

*Note: *, **, *** indicate significant relationships at the 10%, 5%, and 1% threshold, respectively* demonstrates significance in the full sample, not within subsamples split by firm size. This result offers important implications when examined through the lenses of legitimacy theory and signaling theory.

ESG Non-Controversy to Firm Financial Performance

The first hypotheses in this study predicts that ESG non-controversy positively impacts firm's financial performance. The robustness of ESG Non-Controversy's impact across all models highlights its role in legitimacy preservation to social norms in shaping firm performance. Drawing from signaling theory, firms with fewer controversies release strong signal of operational discipline and governance quality (Elamer & Boulhaga, 2024). This reduces investor uncertainty and aligns with risk-averse stakeholder preferences, translating into stronger financial outcomes. The strong, consistent performance of ESG non-controversy across all analyses underscores its role as a particularly effective signal in reducing information asymmetry (Spence 1973). Legitimacy theory complements this explanation by suggesting that firms avoiding controversies are better positioned to maintain a "social license to operate".

From a legitimacy theory perspective, firms that steer clear of ESG controversies are more likely to maintain a "social license to operate," minimize stakeholder conflict, and avoid regulatory or reputational sanctions. Controversies related to environmental harm or unethical labor practices can quickly damage reputation and stakeholder trust, regardless of firm size, particularly in an era of heightened stakeholder scrutiny and rapid information dissemination (Aouadi & Marsat 2018). Thus, avoiding such controversies remains a key strategy for both large and small firms in sustaining their social license to operate.

Consistent with prior research, ESG controversies are shown to have a negative impact on firm performance, despite in this study use reverse score representing absence of ESG controversy. Our finding inline with Elamer & Boulhaga (2024) and Wu et al. (2023) that ESG controversy has negatively impact firm financial performance (Elamer & Boulhaga 2024; Wu et al. 2023). This reinforces the theoretical argument that controversies erode stakeholder trust, leading to reputational damage and reduced financial outcomes (Aouadi and Marsat 2018). This finding aligns with the view that minimizing ESG controversies enhances a firm's reputation and credibility, which can attract socially responsible investors and strengthen stakeholder trust.

ESG Innovation to Firm Financial Performance

The second hypotheses in this study predicts that ESG innovation positively impacts firm's financial performance. ESG innovation loses its statistical significance in both size-based subsamples, despite showing a positive and significant relationship in the full sample. It may initially appear contradictory, however, this can be explained by one plausible explanation is that the signaling value of ESG innovation is context-dependent, which may be diluted when sample size is restricted.

According to signaling theory (Spence 1973), ESG Innovation represents a proactive and strategic signal that a firm is forward-thinking, however, the effectiveness of such a signal depends on the receiver's ability to interpret and validate it (Connelly et al. 2024). While innovation may signal strategic foresight, such signals are subject to interpretation risk. Not all stakeholders may perceive ESG innovation as financially relevant. For theory, the findings advance signaling theory by showing that not all ESG signals are equally interpretable or valued across firm contexts.

While conformity offers safe legitimacy returns, differentiation through ESG innovation can build competitive advantage, yet only when stakeholders can interpret and trust the signal. As Cho et al. (2015) warn, ESG disclosures and innovations are susceptible to decoupling, where symbolic action diverges from substantive change. Hence, signaling through innovation requires credible commitment and governance support to avoid skepticism or organized hypocrisy perceptions. Furthermore, this suggests that non-controversy may serve as a more universally understood and accepted mechanism of legitimacy, while ESG innovation's value is more context-sensitive and may require more stakeholder engagement (Higgins et al. 2020) to be able communicate it and yield financial return.

Practically, these results have important implications for both managers and investors. For corporate decision-makers, the findings suggest that prioritizing ESG risk management to preserve short-term performance while recognizing that strategic ESG innovation may yield longer-term benefits This doesn't imply that innovation should be neglected, but firms rather need to carefully communicate their ESG innovation initiatives. For investors, the results highlight the importance of distinguishing between different types of ESG performance when making investment decisions and conducting valuation analyses. Investors should also differentiate between compliance-driven and strategic ESG actions.

CONCLUSION

This study confirms that ESG non-controversy has a clear and positive relationship with firm financial performance, while ESG innovation shows a more limited effect. This study contributes to ESG literature by disentangling the effects of negative ESG controversy avoidance versus proactive ESG innovation strategy.

This study makes several important contributions to both theory and practice. Theoretically, it provides empirical validation for signaling theory's prediction about the differential strength of various ESG signals through conformity with societal norms and expectation which explained by legitimacy theory. The results particularly highlight the financial value of maintaining a controversy-free profile, suggesting that firms may benefit from strengthening their ESG risk management systems. For ESG innovation, the findings suggest a more cautious strategy. Future research should continue to explore the contingencies that shape when and how different ESG initiatives create financial value, potentially incorporating more dynamic measures of performance and more granular ESG metrics. From a practical standpoint, the findings offer actionable insights for managers allocating scarce ESG resources and for investors seeking to incorporate ESG factors into their decision-making processes.

Despite these contributions, this study has certain limitations that should be acknowledged. This study only examines the number of firms that exist in Thomson Reuters database, which it is limited compared to actual population. Future research should explore alternative ESG measurement frameworks and assess their impact on firm performance across different contexts. Furthermore, investigating industry-specific and how they influence firm performance could also provide deeper insights into the mechanisms through which ESG aspects contribute to financial success.

.

REFERENCES:

Ademi, Bejtush, and Nora Johanne Klungseth. (2022). "Does It Pay to Deliver Superior ESG Performance? Evidence from US S&P 500 Companies." *Journal of Global Responsibility* 13 (4): 421–49. https://doi.org/10.1108/JGR-01-2022-0006.

Ahmad, Nisar, Asma Mobarek, and Naheed Nawazesh Roni. (2021). "Revisiting the Impact of ESG on Financial Performance of FTSE350 UK Firms: Static and Dynamic Panel Data Analysis." *Cogent Business and*

Management. https://doi.org/10.1080/23311975.2021.1900500.

Akerlof, George A. (1970). "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism." *The Quarterly Journal of Economics* 84 (3): 488–500. https://doi.org/10.2307/1879431.

Al-Shaer, Habiba, Ali Uyar, Cemil Kuzey, and Abdullah S. Karaman. (2023). "Do Shareholders Punish or Reward Excessive CSR Engagement? Moderating Effect of Cash Flow and Firm Growth." *International Review of Financial Analysis*. https://doi.org/10.1016/j.irfa.2023.102672.

Aouadi, Amal, and Sylvain Marsat. (2018). "Do ESG Controversies Matter for Firm Value? Evidence from International Data." *Journal of Business Ethics* 151 (4): 1027–47. https://doi.org/10.1007/s10551-016-3213-8.

Ardiansyah, Gabrielle Givens Kurniawan. (2020). "Pengaruh Profitabilitas, Ukuran Perusahaan, Leverage Dan Likuiditas Terhadap Nilai Perusahaan." *Jurnal Paradigma Akuntansi*. https://doi.org/10.24912/jpa.v2i1.7165.

Aydoğmuş, Mahmut, Güzhan Gülay, and Korkmaz Ergun. (2022). "Impact of ESG Performance on Firm Value and Profitability." *Borsa Istanbul Review*. https://doi.org/10.1016/j.bir.2022.11.006.

Casciello, Raffaela, Rosalinda Santonastaso, Martina Prisco, and Ilaria Martino. (2024). "Green Innovation and Financial Performance. The Role of R&D Investments and ESG Disclosure." *Corporate Social Responsibility and Environmental Management* 31 (6): 5372–90. https://doi.org/https://doi.org/10.1002/csr.2862.

Chen, Kecun. (2024). "The Strategic Integration of ESG Principles in Corporate Innovation: Theoretical Foundations, Mechanisms, and Practical Challenges." *International Journal of Novel Research in Marketing Management and Economics* 11 (2). https://doi.org/10.5281/zenodo.13589231.

Chen, Zhongfei, and Guanxia Xie. (2022). "ESG Disclosure and Financial Performance: Moderating Role of ESG Investors." *International Review of Financial Analysis*. https://doi.org/10.1016/j.irfa.2022.102291.

Cheng, Qiang, An-Ping Lin, and Mengjie Yang. (2024). "Green Innovation and Firms' Financial and Environmental Performance: The Roles of Pollution Prevention versus Control." *Journal of Accounting and Economics*, 101706. https://doi.org/https://doi.org/10.1016/j.jacceco.2024.101706.

Cho, Charles H, Matias Laine, Robin W Roberts, and Michelle Rodrigue. (2015). "Organized Hypocrisy, Organizational Façades, and Sustainability Reporting." *Accounting, Organizations and Society* 40:78–94. https://doi.org/https://doi.org/10.1016/j.aos.2014.12.003.

Chouaibi, Salim, Jamel Chouaibi, and Matteo Rossi. (2022). "ESG and Corporate Financial Performance: The Mediating Role of Green Innovation: UK Common Law versus Germany Civil Law." *EuroMed Journal of Business* 17 (1): 46–71. https://doi.org/10.1108/EMJB-09-2020-0101.

Connelly, Brian L, S. Trevis Certo, Christopher R Reutzel, Mark R DesJardine, and Yi Shi Zhou. (2024). "Signaling Theory: State of the Theory and Its Future." *Journal of Management* 51 (1): 24–61. https://doi.org/10.1177/01492063241268459.

Connelly, Brian L, S Trevis Certo, R Duane Ireland, and Christopher R Reutzel. (2010). "Signaling Theory: A Review and Assessment." *Journal of Management* 37 (1): 39–67. https://doi.org/10.1177/0149206310388419.

Deegan, Craig. (2002). "Introduction: The Legitimising Effect of Social and Environmental Disclosures – a Theoretical Foundation." *Accounting, Auditing & Accountability Journal* 15 (3): 282–311. https://doi.org/10.1108/09513570210435852.

Elamer, Ahmed A., and Mounia Boulhaga. (2024). "ESG Controversies and Corporate Performance: The Moderating Effect of Governance Mechanisms and ESG Practices." *Corporate Social Responsibility and Environmental Management*. https://doi.org/10.1002/csr.2749.

Eriandani, Rizky, and Wahyu Agus Winarno. (2023). "ESG and Firm Performance: The Role of Digitalization." *Journal of Accounting and Investment*. https://doi.org/10.18196/jai.v24i3.20044.

Friede, Gunnar, Timo Busch, and Alexander Bassen. (2015). "ESG and Financial Performance: Aggregated Evidence from More than 2000 Empirical Studies." *Journal of Sustainable Finance & Investment* 5 (4): 210–33. https://doi.org/10.1080/20430795.2015.1118917.

Gallagher, Vickie Coleman, Tracy H Porter, and Kevin P Gallagher. (2020). "Sustainability Change Agents: Leveraging Political Skill and Reputation." *Journal of Organizational Change Management* 33 (1): 181–95. https://doi.org/10.1108/JOCM-01-2018-0031.

GSIA. (2021). "Global Sustainable Investment Review." https://www.gsi-alliance.org/wp-

content/uploads/2021/08/GSIR-20201.pdf.
Higgins, Colin, Samuel Tang, and Wendy Stubbs. (2020). "On Managing Hypocrisy: The Transparency of Sustainability Reports." *Journal of Business Research* 114:395–407. https://doi.org/10.1016/j.jbusres.2019.08.041.
Khemir, Souhir, Chedli Baccouche, and Salma Damak Ayadi. (2019). "The Influence of ESG Information on Investment Allocation Decisions: An Experimental Study in an Emerging Country." *Journal of Applied Accounting Research* 20 (4): 458–80. https://doi.org/10.1108/JAAR-12-2017-0141.
Li, Jialong, Zulfiquer Ali Haider, Xianzhe Jin, and Wenlong Yuan. (2019). "Corporate Controversy, Social Responsibility and Market Performance: International Evidence." *Journal of International Financial Markets, Institutions and Money* 60:1–18. https://doi.org/https://doi.org/10.1016/j.intfin.2018.11.013.
Makhdalena, Desi Zulvina, Yani Zulvina, Rizky Windar Amelia, and Aditya Pandu Wicaksono. (2023). "ESG and Firm Performance in Developing Countries: Evidence From ASEAN." *Etikonomi* 22(1):65-78. https://doi.org/10.15408/etk.v22i1.25271.
Melinda, Anna, and Ratna Wardhani. (2020). "The Effect of Environmental, Social, Governance, and Controversies on Firms' Value: Evidence from Asia." In , 147–73. https://doi.org/10.1108/S1571-038620200000027011.
Nirino, Niccolò, Gabriele Santoro, Nicola Miglietta, and Roberto Quaglia. (2021). "Corporate Controversies and Company's Financial Performance: Exploring the Moderating Role of ESG Practices." *Technological Forecasting and Social Change* 162:120341. https://doi.org/https://doi.org/10.1016/j.techfore.2020.120341.
Qian, Wei, Carol Tilt, and Ataur Belal. (2021). "Social and Environmental Accounting in Developing Countries: Contextual Challenges and Insights." *Accounting, Auditing and Accountability Journal* 34 (5): 1021–50. https://doi.org/10.1108/AAAJ-03-2021-5172/FULL/PDF.
Refinitiv. (2024). "Environmental, Social and Governance Scores from Refinitiv." 2024.
Spence, Michael. (1973). "Job Market Signaling." *Quarterly Journal of Economics*. https://doi.org/10.2307/1882010.
Suchman, Mark C. (1995). "Managing Legitimacy: Strategic and Institutional Approaches." *The Academy of Management Review* 20 (3): 571–610. https://doi.org/10.2307/258788.
Tan, Wenhao, Yaqi Cai, Huilin Luo, Min Zhou, and Minghao Shen. (2024). "ESG, Technological Innovation and Firm Value: Evidence from China." *International Review of Financial Analysis* 96:103546. https://doi.org/10.1016/j.irfa.2024.103546.
Tilt, Carol A. 2016. "Corporate Social Responsibility Research: The Importance of Context." *International Journal of Corporate Social Responsibility (2016) 1:1* 1 (1): 1–9. https://doi.org/10.1186/S40991-016-0003-7.
Wijaya, Jessica, and Wirawan Endro Dwi Radianto. (2023). "The Effect of Independent Commissioners, EVA, and ROA on Firm Value." *Journal of Business and Information Systems (e-ISSN: 2685-2543)*. https://doi.org/10.36067/jbis.v5i2.207.
Wu, Zihao, Siliang Lin, Tianhao Chen, Chunyang Luo, and Hui Xu. (2023). "Does Effective Corporate Governance Mitigate the Negative Effect of ESG Controversies on Firm Value?" *Economic Analysis and Policy*. https://doi.org/10.1016/j.eap.2023.11.018.
Yudhanto, Wildan, and Alex Johanes Simamora. (2023). "Environmental, Social, and Governance Risk on Firm Performance: The Mediating Role of Firm Risk." *Binus Business Review*. https://doi.org/10.21512/bbr.v14i2.8935.
Zhang, Fen, Xiaonan Qin, and Lina Liu. (2020). "The Interaction Effect between ESG and Green Innovation and Its Impact on Firm Value from the Perspective of Information Disclosure." *Sustainability*. https://doi.org/10.3390/su12051866.
Zhao, Dongyuan, Zhongjun Tang, and Duokui He. (2024). "A Systematic Literature Review of Weak Signal Identification and Evolution for Corporate Foresight." *Kybernetes* 53 (10): 3160–88. https://doi.org/10.1108/K-03-2023-0343.