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The Impact of Greenwashing on Firm Value: The Moderating Role of Independent Commissioners

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Abstract

Purpose – This study aims to examine the effect of greenwashing on firm value in companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2024. In addition, this study investigates the role of independent commissioners in moderating the relationship between greenwashing and firm value.

Design/methodology/approach – This research employs secondary data obtained from IDX-listed companies during 2021–2024, resulting in 207 observations selected through purposive sampling. Greenwashing is measured as the gap between ESG disclosure scores and ESG performance scores, while firm value is proxied by Tobin's Q. The data are analyzed using panel data regression.

Findings – The results indicate that greenwashing has a positive effect on firm value, suggesting that symbolic ESG disclosures remain effective in shaping investor perceptions. However, independent commissioners are not found to moderate the relationship between greenwashing and firm value.

Originality/value – This study contributes to the literature by providing empirical evidence on the effect of greenwashing in an emerging market context, particularly Indonesia, and by examining the role of corporate governance mechanisms through independent commissioners.

Research limitations/implications – The study is subject to several limitations, including limited availability of ESG data in Indonesia, a relatively short observation period, and the use of a single governance variable, which may not fully capture the overall role of corporate governance.

Keywords: Greenwashing, firm value, independent commissioners, ESG disclosure and Tobin's Q.

Article Type: Research paper

Introduction

In the context of modern business, sustainability issues have gained increasing attention in line with the growing global concern over the impacts of climate change and environmental degradation. Indonesia has set a target to achieve Net Zero Emissions (NZE) by 2060 or earlier as a commitment to balancing greenhouse gas (GHG) emissions produced with the amount that can be reabsorbed by the environment. However, the Indonesia Energy Transition Outlook 2025 report published by the Institute for Essential Services Reform (IESR) indicates that the energy transition process in Indonesia is still progressing relatively slowly. This is reflected in the contribution of renewable energy, which only reached 13.1% in 2023, still far below the target of a 23% renewable energy mix by 2025.

This condition increases pressure from stakeholders for companies to adopt more sustainable operational practices and to disclose their performance through sustainability reports containing Environmental, Social, and Governance (ESG) information. In Indonesia, the obligation to publish sustainability reports is regulated under POJK No. 51/POJK.03/2017 and further strengthened by SEOJK No. 16/SEOJK.04/2021. Based on the Indonesia Stock Exchange (IDX) Press Release in 2025, approximately 94% of listed companies have disclosed ESG aspects in their sustainability reports for the 2023 reporting year. Nevertheless, the high level of disclosure is not necessarily accompanied by the quality and reliability of the information presented. This is due to the absence of mandatory audits for sustainability reports in Indonesia, as highlighted by the Indonesian Institute of Accountants (IAI). Such conditions create opportunities for companies to present sustainability information opportunistically, a practice commonly referred to as greenwashing (Bernini & La Rosa, 2024).

Frendy et al. (2024) define greenwashing as a deliberate action by companies to provide exaggerated statements regarding their environmental performance in sustainability disclosures compared to actual conditions, with the aim of building an environmentally friendly corporate image. In line with this, Chen & Dagestani (2023) argue that greenwashing is a negative strategy used by firms to alleviate external pressures while simultaneously gaining legitimacy from stakeholders. This phenomenon is increasingly likely to occur due to the presence of information asymmetry between principals and agents. Bernini & La Rosa (2024) explain that information asymmetry provides opportunities for managers to act opportunistically in conveying information to stakeholders. Under such conditions, firms with relatively low ESG performance tend to strengthen positive narratives in their sustainability disclosures to conceal their actual performance weaknesses, reduce negative perceptions from stakeholders, and build an ethical image and corporate reputation (Chen & Dagestani, 2023; Wedari & Jubb, 2021).

The tendency of companies to engage in greenwashing practices can be explained through the perspective of legitimacy theory (Gatti et al., 2019; Pizzetti et al., 2021 in Feghali et al., 2025). According to Suchman (1995), firms strive to ensure that their activities are aligned with societal values, norms, and expectations in order to obtain and maintain social legitimacy. When there is a misalignment between corporate behavior and public expectations, particularly in environmental issues, companies may face a legitimacy crisis, reflecting a gap between public perception and actual conditions. In such situations, greenwashing is often used as a mechanism to maintain social legitimacy (Feghali et al., 2025). In other words, greenwashing can serve as a strategic tool for companies to preserve legitimacy when their actual environmental performance is still inadequate.

In recent years, a number of studies have focused on the consequences of greenwashing practices on various aspects of firms, such as firm performance (Birindelli et al., 2024; Kiran et al., 2024; Purnamasari & Umiyati, 2024), market value (Xu et al., 2025) and firm value (Chen & Dagestani, 2023; Freshtriana & Kim, 2025; Ghitti et al., 2023; Islahuddin et al., 2026). However, empirical findings regarding the impact of greenwashing on firm value remain inconsistent. Some studies find that greenwashing can enhance firm value by improving perceptions of disclosure quality, attracting stakeholder attention, and reducing financing constraints (Chen & Dagestani, 2023; Freshtriana & Kim, 2025). In contrast, other studies suggest that greenwashing may reduce firm value when investors perceive sustainability disclosures as misleading information (Ghitti et al., 2023; Islahuddin et al.,

2026). These conflicting findings indicate the presence of other factors that may influence this relationship, one of which is corporate governance mechanisms. From the perspective of agency theory, opportunistic behavior arising from the separation of ownership and control can be mitigated through the implementation of effective governance mechanisms (Fama & Jensen, 2009).

One of the Good Corporate Governance (GCG) mechanisms that plays a strategic role in overseeing managerial actions and decisions to ensure alignment with shareholders' interests is the presence of independent commissioners. Imam et al. (2024) argue that the existence of independent commissioners enhances the quality of reporting transparency. Through their independent monitoring function, independent commissioners encourage management to disclose information that is relevant, reliable, and timely to stakeholders. However, this study is still limited to examining the role of independent commissioners within the board structure and does not specifically link it to greenwashing practices. Furthermore Noor et al. (2025) investigate the role of independent directors in improving ESG reporting among non-financial firms in Pakistan. Their findings indicate that the presence of independent directors has a significant effect on enhancing the quality of ESG reporting. Nevertheless, this effect is not consistent and depends on the measurement indicators used, suggesting that the effectiveness of independent directors still requires further investigation, particularly in the context of greenwashing practices. On the other hand, Pujaprayoga & Kartadjumena (2025) find that the professionalism of independent commissioners is able to reduce earnings manipulation through the strengthening of managerial oversight functions. However, this study does not explicitly examine the role of independent commissioners in relation to greenwashing practices.

Based on the above background, this study aims to examine the effect of greenwashing on firm value, with independent commissioners serving as a moderating variable, in companies listed on the IDX during the 2021–2024 period. This study is particularly important given the limited empirical evidence that specifically investigates the role of independent commissioners in moderating the relationship between greenwashing and firm value, especially in the context of emerging markets such as Indonesia. Moreover, the difficulty in identifying greenwashing practices, coupled with the absence of mandatory audits for sustainability reports, further increases the potential for opportunistic reporting behavior (Bernini & La Rosa, 2024).

This study contributes to the literature in several ways. First, it enriches the existing literature on greenwashing and the role of independent commissioners in the context of firm value. Second, it addresses a research gap by examining the role of independent commissioners as a moderating variable in the relationship between greenwashing and firm value, which remains relatively limited in prior studies (Freshtriana & Kim, 2025; Ghitti et al., 2023; Islahuddin et al., 2026). Third, this study provides practical implications for regulators, investors, and other stakeholders regarding the importance of strengthening corporate governance mechanisms, particularly the role of independent commissioners, in improving the quality of sustainability reporting and mitigating greenwashing practices.

Literature Review

Legitimacy Theory

Legitimacy theory, introduced by Dowling & Pfeffer (1975), explains that the survival of an organization depends on the legitimacy granted by society. A company is considered legitimate when its activities and policies are aligned with the values and norms prevailing within the social system. When a misalignment occurs between corporate values and societal expectations, organizational legitimacy may be threatened. To maintain such social acceptance, companies often employ symbolic communication strategies by increasing information disclosure or constructing positive narratives to influence stakeholders' perceptions, even when these are not necessarily accompanied by substantive changes in operational practices.

In the context of greenwashing, legitimacy theory explains that companies may present environmental claims that are more favorable than their actual environmental performance in order

to obtain and maintain social legitimacy (Cao et al., 2022). In the context of greenwashing, legitimacy theory explains that companies may present environmental claims that are more favorable than their actual environmental performance in order to obtain and maintain social legitimacy. The legitimacy successfully constructed can enhance investor confidence and strengthen the company's image in the market (Cao et al., 2022). In the short term, this condition has the potential to improve market evaluations of the firm and positively affect firm value. Thus, legitimacy theory is relevant in explaining how greenwashing practices can contribute to an increase in firm value.

Agency Theory

Agency theory, introduced by Jensen & Meckling (1976) explains the contractual relationship between firm owners (principals) and managers (agents), in which differences in interests and the presence of information asymmetry may lead to agency conflicts. This condition provides opportunities for management to act opportunistically, such as through greenwashing practices, which involve disclosing environmental claims that do not fully reflect actual conditions and may mislead stakeholders (Bernini & La Rosa, 2024). Such conflicts highlight the importance of implementing monitoring mechanisms through good corporate governance (Fama & Jensen, 2009). Within the framework of Good Corporate Governance, the presence of independent commissioners serves as an objective monitoring mechanism to reduce managerial opportunistic behavior, mitigate information asymmetry, and enhance the quality of corporate disclosure (Noor et al., 2025). Therefore, independent commissioners are considered a governance mechanism that has the potential to moderate the relationship between greenwashing and firm value (Yu et al., 2020).

Greenwashing

The concept of greenwashing was first introduced by Jay Westerveld in 1986 to describe corporate practices that promote an environmentally friendly image without being accompanied by genuine environmental commitments. In the academic literature, Lyon & Maxwell (2011) define greenwashing as the selective disclosure of environmental information, emphasizing positive aspects while concealing negative ones. Meanwhile, Walker & Wan (2012) view greenwashing as a gap between symbolic disclosure and actual environmental performance. Based on these perspectives, this study defines greenwashing as the misalignment between corporate environmental disclosures and actual environmental performance. This practice generally manifests in the form of selective disclosure and is driven by legitimacy pressures, weak regulatory frameworks, and the efforts of firms with low environmental performance to maintain a positive image among stakeholders (Wedari & Jubb, 2021; Yang et al., 2020).

Firm Value

Firm value represents the market's assessment of a company's ability to create and sustain economic value over time. According to Lonkani (2018), firm value reflects both explicit contracts between the company and its key stakeholders as well as implicit contracts related to market expectations regarding transparency, governance, and the firm's long-term commitment. Firm value is generally reflected in market value, particularly through stock prices, which capture investors' perceptions of a company's performance and future prospects (Fama & Jensen, 2009).

Independent Commissioners

Independent commissioners are members of the board of commissioners who have no affiliation with management, no familial relationships with internal parties of the company, and no share ownership, thereby enabling them to perform their monitoring function objectively. From the perspective of agency theory as proposed by Jensen & Meckling (1976) and further developed by Fama & Jensen (2009), the presence of independent commissioners serves as a monitoring mechanism to reduce conflicts of interest and managerial opportunistic behavior. With their relatively neutral position, independent commissioners are expected to enhance the effectiveness of oversight, maintain

objectivity in decision-making, and protect the interests of shareholders as well as other stakeholders (Dahlia, 2018; Solikhah & Suryandani, 2022).

The Effect of Greenwashing on Firm Value of Companies Listed on the Indonesia Stock Exchange

Greenwashing is a practice in which companies present sustainability information that is more favorable than their actual performance (Lyon & Maxwell, 2011). In this context, ESG disclosure serves not only as a means of transparency but also as a strategic instrument to shape stakeholders' perceptions of the company.

Based on legitimacy theory, firms seek to gain support from stakeholders by demonstrating that their activities are aligned with societal values and expectations (Dowling & Pfeffer, 1975). One of the efforts undertaken is through extensive sustainability disclosure to build a positive public image. Such disclosures are often used as signals that the company is committed to environmental and social issues (Cao et al., 2022), regardless of whether the underlying performance fully reflects actual conditions.

In practice, stakeholders are not always able to evaluate the alignment between ESG disclosure and actual performance, particularly due to information limitations and the complexity of assessing ESG quality (Aptasari et al., 2024). This condition creates opportunities for companies to gain reputational benefits from the information disclosed (Cao et al., 2022). Thus, sustainability disclosure is utilized by firms as a tool to influence external perceptions. In such circumstances, greenwashing practices have the potential to enhance social recognition and shape positive expectations regarding future firm performance, thereby encouraging investor optimism (Gatti et al., 2021). This optimism may subsequently reduce perceived risk and the cost of equity, as well as increase expectations of cash flows and firm value (Cao et al., 2022).

A number of empirical studies also show that greenwashing can have a positive effect on firm value, as it improves perceptions of disclosure quality, responds to stakeholder concerns, and reduces financing constraints (Chen & Dagestani, 2023; Freshtriana & Kim, 2025). In countries with relatively weak regulatory environments, the opportunity for firms to engage in greenwashing without significant consequences is greater, thereby leading to a more positive impact on financial performance and firm value (Li et al., 2023). Based on the theoretical framework and prior empirical findings, the following research hypothesis is proposed:

H_1: *Greenwashing has a positive effect on firm value*

The Effect of Independent Commissioners in Moderating the Relationship between Greenwashing and Firm Value of Companies Listed on the Indonesia Stock Exchange

Independent commissioners are external parties within the corporate governance structure who play a role in maintaining objectivity and balance in managerial decision-making processes, as well as safeguarding the interests of shareholders, particularly minority shareholders (Dahlia, 2018). The presence of independent commissioners constitutes an essential component of Good Corporate Governance (GCG), which fundamentally arises as a response to agency problems within the firm.

From the perspective of agency theory, greenwashing is viewed as a form of managerial opportunistic behavior that emerges due to information asymmetry between principals and agents (Bernini & La Rosa, 2024). The presence of independent commissioners as a control mechanism plays a role in reducing information asymmetry through monitoring managerial policies and actions, particularly in sustainability disclosure practices, to ensure that corporate reporting is conducted transparently and not merely symbolic (Imam et al., 2024).

Furthermore, Noor et al. (2025) explain that firms with a higher level of board independence tend to be perceived as more transparent and trustworthy by stakeholders. In line with this, Handriani, (2020) finds that effective oversight by independent commissioners can limit managerial opportunistic behavior and encourage managers to adopt appropriate policies that align with the company's interests. The effectiveness of this monitoring function enables independent commissioners to constrain greenwashing practices by ensuring that environmental information disclosed by the firm is

relevant, reliable, and reflective of actual environmental performance. Therefore, the presence of independent commissioners is expected to weaken the effect of greenwashing on firm value. Based on the theoretical arguments and prior empirical findings, the research hypothesis is formulated as follows:

H_2: *Independent commissioners weaken the negative effect of greenwashing on firm value*

Methods

This study employs a quantitative approach that focuses on measuring research variables in the form of numerical data, which are then analyzed using statistical techniques to test the formulated hypotheses. The population in this study consists of all companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2024 period, totaling 943 companies. The sample was determined using a purposive sampling technique, which is based on specific criteria to ensure that the selected units of analysis are relevant to the research objectives. These criteria include: 1) companies listed on the IDX during the 2021–2024 period; 2) companies that have ESG scores published by Refinitiv Eikon during the observation period; 3) companies that publish complete sustainability reports during 2021–2024; and 4) companies that publish complete annual reports and financial reports during 2021–2024.

Based on these criteria, a total of 55 companies were selected as the research sample, resulting in 220 observations over the four-year period. The data collection technique used in this study is the documentation method by utilizing secondary data obtained from two main sources, namely the Refinitiv Eikon database for ESG scores, as well as sustainability reports, annual reports, and financial statements accessed through the official websites of each company and the Indonesia Stock Exchange (IDX) portal (www.idx.co.id).

The variables and their measurements in the study are as follows.

1. Firm Value (Y)
   Firm value is designated as the dependent variable. In this study, firm value is the dependent variable, reflecting the market's perception of a company's ability to create sustainable economic value. It is measured using Tobin's Q, based on the following formula:

$$Tobin's\ Q = \frac{MVE + Debt}{Total\ Assets}$$

2. Greenwashing (X)
   Greenwashing is defined as the practice of conveying environmental information that does not reflect the company's actual environmental performance (Walker & Wan, 2012). Greenwashing is measured based on the gap between ESG disclosure scores and ESG performance scores. ESG disclosure scores are calculated using a content analysis method of the company's sustainability reports by referring to the Global Reporting Initiative (GRI) Standards 2021, which include GRI 300 for environmental aspects, GRI 400 for social aspects, and GRI 2 for governance aspects. The content analysis process is conducted by identifying each relevant disclosure indicator within the GRI standards. Each disclosure item is assigned a score of 1 if the company discloses information in accordance with the indicator, and 0 if it is not disclosed. The scores are then summed and normalized by dividing the total score obtained by the maximum number of disclosure items, resulting in an ESG disclosure index score for each company. Meanwhile, ESG performance scores are obtained from the Refinitiv Eikon database, which provides an assessment of corporate ESG performance based on various environmental, social, and governance indicators. The formula used is as follows:

$$Greenwashing\text{it} = ESG\ disclosure\ score\text{it} - ESG\ performance\ score\text{it}$$

3. Independent commissioners (Z)
   In this study, independent commissioners serve as the moderating variable. They are board members with no affiliations to management, ensuring objectivity and minimizing conflicts of interest. The proportion of independent commissioners is calculated using the following formula:

$$Independent\ Commissioners = \frac{Number\ of\ Independent\ Commissioners}{Total\ Commissioners}$$

4. Control variables
   Control Variables are included to limit the influence of factors outside the main variables (Sugiyono, 2013). In this study, they include firm size and profitability, as prior research shows these characteristics affect firm value and relate to greenwashing practices (Chen & Dagestani, 2023; Ghitti et al., 2023; Kiran et al., 2024).
   a. Firm size reflects the scale and scope of a company's operations. In this study, it is measured using the natural logarithm (Ln) of total assets.
   $$Firm\ Size = Ln(Total\ Assets)$$
   b. Profitability reflects a company's ability to generate profits and efficiently use its assets (Kurniawan & Hermanto, 2021). In this study, it is proxied by return on assets (ROA).
   $$ROA = \frac{Net\ Income\ After\ Tax}{Total\ Assets}$$

This study uses two panel data regression models combining cross-sectional and time-series data, processed with EViews 12. The first model examines the effect of greenwashing on firm value.

$$FV_{i,t} = \alpha + \beta_1\ GW_{i,t} + \beta_2 Size_{i,t} + \beta_3 Prof_{i,t} + \varepsilon$$

Model 2 is used to examine the role of independent commissioners as a moderating variable in the relationship between greenwashing practices and firm value.

$$FV_{i,t} = \alpha + \beta_1\ GW_{i,t} + \beta_2 KI_{i,t} + \beta_3 (GW_{i,t} \times KI_{i,t}) + \beta_4 Size_{i,t} + \beta_5 Prof_{i,t} + \varepsilon$$

Results

Descriptive Analysis

Descriptive statistics provide an overview of the variables, including minimum, maximum, mean, and standard deviation values. The results are presented in Table 1 as follows.

The study uses 207 observations, obtained from 220 initial samples after removing 13 outliers. Firm value (Y) ranges from 0.435560 to 5.724978, with a mean of 1.338462 and a standard deviation of 0.861620, indicating relatively low dispersion. Greenwashing (X) ranges from −52.59034 to 69.72339, with a mean of 5.760183 and a standard deviation of 21.94934, showing high variability. The independent commissioner variable ranges from 0.200000 to 0.833333, with a mean of 0.466224 and a standard deviation of 0.117890, indicating a relatively concentrated distribution.

Table 1. Descriptive Statistics

	FV	GW	KI	ROA	SIZE
Mean	1.338462	5.760183	0.466224	0.062768	31.88224
Median	0.986908	7.605026	0.500000	0.045607	31.74957
Maximum	5.724978	69.72339	0.833333	0.454267	35.42552
Minimum	0.435560	-52.59034	0.200000	-0.055967	27.43591
Std. Dev.	0.861620	21.94934	0.117890	0.072924	1.485519
Skewness	2.351310	-0.014879	0.593577	2.047401	0.053282
Kurtosis	9.124417	3.084389	3.628751	9.147747	3.407516
Jarque-Bera	514.2494	0.069060	15.56521	470.5989	1.530293
Probability	0.000000	0.966059	0.000417	0.000000	0.465266
Sum	277.0617	1192.358	96.50833	12.99303	6599.624
Sum Sq. Dev.	152.9321	99245.35	2.863015	1.095497	454.5941
Obersevation	207	207	207	207	207

Regression Model Selection

Chow Test

The Chow test is conducted to identify the most appropriate panel data regression model for this study by comparing the Fixed Effect Model (FEM) and the Common Effect Model (CEM).

Table 2. Uji Chow

	Cross-section F	Probability
Model 1	24.817572	0.0000
Model 2	24.111894	0.0000

Table 2 on the Chow test shows a cross-section probability of 0.0000 (< 0.05), indicating that H0 is rejected and Fixed Effect Model (FEM) is the appropriate model.

Hausman Test

The Hausman test is used to determine the most appropriate panel regression model between the Fixed Effect Model (FEM) and the Random Effect Model (REM), as shown in Table 3.

Table 3. Uji Hausman

	Cross-section Random	Probability
Model 1	37.292424	0.0000
Model 2	38.321405	0.0000

The Hausman test shows a cross-section probability of 0.0000 (< 0.05), indicating that H0 is rejected and H1 is accepted. Therefore, the Fixed Effect Model (FEM) is the most appropriate model.

Lagrange Multiplier Test

The Lagrange Multiplier (LM) test is basically used to identify the most appropriate panel data regression model between the Common Effect Model (CEM) and the Random Effect Model (REM). However, in this study, the Lagrange Multiplier test was not conducted. This is because, based on the results of the Chow test and the Hausman test, the selected model is the Fixed Effect Model (FEM).

Classical Assumption Test

The normality test is conducted to examine whether the residuals generated from the regression model follow a normal distribution. In this study, the assessment of residual normality is performed using the Jarque–Bera (JB) test.

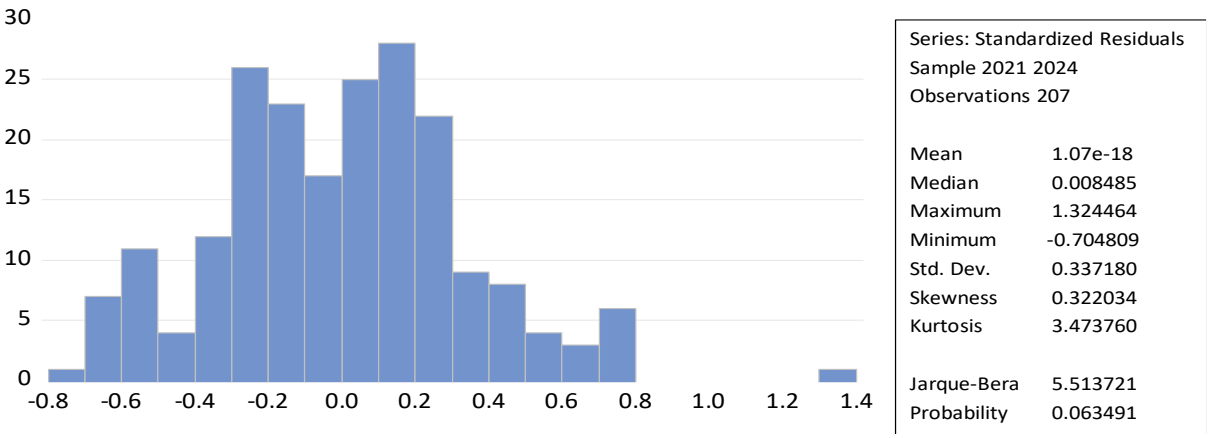

Figure 1. Normality Test Results

Based on Figure 1 above, the probability value is 0.063491, which is greater than 0.05, indicating that the residuals are normally distributed.

The multicollinearity test is conducted to determine whether there is a high relationship or correlation among the independent variables in the regression model.

Table 4. Multicollinearity Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	1.861595	618.3824	NA
GW	7.76E-06	1.321572	1.236033
KI	0.219609	16.86560	1.008964
GW*KI	0.000498	1.110997	1.107933
ROA	0.593115	1.818914	1.042682
SIZE	0.001754	593.6243	1.279765

Based on Table 4, there was no indication of multicollinearity, as all Centered VIF values were below the tolerance threshold of 10.

The heteroskedasticity test was conducted to assess whether the variance of residuals in the regression model exhibits an inconsistent pattern across observations.

Table 5. Heteroskedasticity Test

F-statistic	10.98051	Prob. F (5,202)	0.000
Obs*R-squared	44.41078	Prob. Chi-Square (5)	0.000
Scaled explained SS	61.26197	Prob. Chi-Square (5)	0.000

Based on Table 5, the regression model exhibits heteroskedasticity (probability < 0.05). To address this, the model is corrected using the Generalized Least Squares (GLS) method with cross-section weights.

Hypothesis Test

Model 1 in Tabel 6 shows an adjusted R-squared value of 0.887787, meaning that greenwashing, profitability, and firm size explain 88.77% of the variation in firm value, while 11.23% is explained by other variables.

Table 6. Determinant Coefficient Test

Model	R-squared	Adjusted R-squared	S.E. of Regression
1	0.917747	0.887787	0.406421
2	0.916655	0.884771	0.396463

Model 2 in Table 6 has an adjusted R-squared value of 0.884771, indicating that after including independent commissioners and their interaction with greenwashing, the model explains 88.47% of the variation in firm value, with the remaining 11.53% influenced by other factors.

Table 7 presents F-test results, model 1 shows an F-statistic of 30.63263 with a probability < 0.05, indicating that greenwashing, profitability, and firm size simultaneously have a significant effect on firm value. Meanwhile, Model 2 shows an F-statistic of 28.74992 with a probability < 0.05, indicating that greenwashing, independent commissioners, their interaction, and control variables simultaneously have a significant effect on firm value.

Table 7. F – test

Model	F-statistic	Prob(F-statistic)
1	30.63263	0.000000
2	28.74992	0.000000

Based on the data processing results above, the following two equations are obtained:

$$FV_{i,t} = 28{,}41084 + 0{,}001379GW_{i,t} - 0.852214Size_{i,t} + 1{,}436524Prof_{i,t} + \varepsilon \text{.....(1)}$$

$$FV_{i,t} = 25{,}79690 + 0{,}000596GW_{i,t} + 0{,}060903KI_{i,t} - 0{,}007946\left(GW_{i,t} \times KI_{i,t}\right) - 0{,}771363Size_{i,t} + 1{,}650231Prof_{i,t} + \varepsilon \text{.....(2)}$$

Table 8 presents the hypotheses results. The first hypothesis (H1) states that greenwashing has a positive effect on firm value. Based on the partial test results in Model 1, the greenwashing variable has a regression coefficient of 0.001379 with a p-value of 0.0428. The positive coefficient indicates a

positive relationship between greenwashing and firm value, and the p-value below 0.05 shows that the effect is statistically significant. Therefore, **H1 is supported**, meaning greenwashing has a positive and significant effect on firm value.

Tabel 8. T – test

Variable		Prediction	Model 1	Model 2
Constanta	Coef		28.41084	25.79690
	Prob		0.0000	0.0000
GW	Coef	+	0.001379	0.000596
	Prob		0.0428	0.4230
KI	Coef	+		0.060903
	Prob			0.6348
GW*KI	Coef	-		-0.007946
	Prob			0.0815
ROA	Coef	+	1.436524	1.650231
	Prob		0.0004	0.0001
SIZE	Coef	-	-0.119489	-0.771363
	Prob		0.0000	0.0000
Adjusted R-squared			0.887787	0.884771
Prob(F-Statistic)			0.000000	0.000000

The second hypothesis (H2) states that independent commissioners weaken the effect of greenwashing on firm value. Based on Model 2, the interaction variable between greenwashing and independent commissioners has a coefficient of −0.007946 with a p-value of 0.0815. This indicates that the moderating effect is not statistically significant. Thus, **H2 is rejected**. Although the negative coefficient suggests a potential weakening effect, it is not statistically significant.

The regression results also show that the control variable profitability has a positive and significant effect on firm value, indicating that more profitable companies tend to have higher firm value. In contrast, firm size has a negative and significant effect, suggesting that larger firms tend to have lower firm value.

Discussion

The Effect of Greenwashing on Firm Value

The first hypothesis in this study states that greenwashing has a positive effect on firm value. This implies that companies engaging in greenwashing practices are expected to experience an increase in firm value. In this study, greenwashing is measured using the difference between ESG disclosure scores and ESG performance scores. This difference reflects the inconsistency between the sustainability information disclosed by the company and its actual sustainability performance. Based on the hypothesis testing results, the regression coefficient of the greenwashing variable is positive with a significant p-value (0.0428 < 0.05). These findings indicate that greenwashing has a positive and significant effect on firm value. This result can be explained through the lens of legitimacy theory, which posits that companies seek to gain support from stakeholders by presenting activities that align with social values and expectations (Suchman, 1995). In this context, symbolic ESG disclosures through greenwashing practices are still capable of shaping positive investor perceptions of the company.

The results of this study are consistent with several previous studies that found a positive effect of greenwashing on firm value. Studies conducted by Chen & Dagestani (2023), Freshtriana & Kim (2025) and Kiran et al. (2024) show that greenwashing practices can enhance firm value by improving perceptions of disclosure quality, addressing stakeholder concerns, and increasing the company's ability to reduce financing constraints. This occurs because broader sustainability disclosures can create an image of the company as a socially and environmentally responsible entity. This positive image attracts investors and other stakeholders while also helping the company reduce financing barriers.

In the Indonesian context, the positive effect of greenwashing on firm value can be explained by two main conditions: weak sustainability reporting regulations and the limited ability of stakeholders to detect greenwashing practices. First, from a regulatory perspective, sustainability reporting practices in Indonesia are still in a developmental stage. Although regulations such as POJK No. 51/POJK.03/2017 exist, their implementation tends to be more formalistic in fulfilling obligations and does not fully emphasize the quality and reliability of the disclosed information. Furthermore, the absence of mandatory independent audits or assurance for sustainability reports weakens the monitoring mechanism of such disclosures (Farilla & Abiprayu, 2025). In line with this, the literature suggests that the extent and impact of greenwashing are influenced by the institutional characteristics in which companies operate (Berrone et al., 2017; Delmas & Burbano, 2011 in Bernini & La Rosa, 2024). In environments with relatively weak regulations, companies tend to have greater opportunities to engage in greenwashing without facing significant consequences. This is supported by Li et al. (2023), who find that under weak government oversight, greenwashing may be positively associated with firm financial performance.

Second, the positive effect of greenwashing is also driven by the limitations and difficulties faced by stakeholders in identifying such practices. Greenwashing enables companies to highlight positive information while concealing negative aspects (Lyon & Maxwell, 2011), which is further exacerbated by information asymmetry between companies and investors (Bernini & La Rosa, 2024; Cao et al., 2022). The complexity of evaluating environmental performance also prevents some investors from conducting in-depth assessments (Aptasari et al., 2024), leading them to rely primarily on sustainability reports. As a result, greenwashing can enhance corporate reputation and investor trust, ultimately increasing firm value (Freshtriana & Kim, 2025). This condition indicates that market legitimacy tends to be more dominant than short-term reputational risk, where investors respond more to explicitly disclosed information rather than critically evaluating the alignment between disclosure and actual performance.

Thus, these findings indicate that, in the context of the Indonesian capital market, companies' efforts to gain legitimacy through symbolic disclosures remain effective in influencing investor perceptions. However, the increase in firm value resulting from greenwashing tends to be short-term in nature (Cao et al., 2022). If such practices are exposed, stakeholder trust may decline significantly and potentially lead to negative long-term consequences, including a decrease in investor interest in the company (Xu et al., 2025; Yang et al., 2020).

The Effect of Independent Commissioners in Moderating the Relationship between Greenwashing and Firm Value

The second hypothesis in this study states that independent commissioners weaken the effect of greenwashing on firm value. This implies that in companies with a higher proportion of independent commissioners, the impact of greenwashing practices on firm value is expected to be smaller compared to companies with lower board independence. From the perspective of agency theory, greenwashing is viewed as a form of opportunistic managerial behavior arising from information asymmetry between principals and agents (Bernini & La Rosa, 2024). Therefore, independent commissioners play an important role as a monitoring mechanism responsible for overseeing managerial policies and actions, as well as reducing information asymmetry between management and stakeholders, particularly in sustainability disclosure practices (Handriani, 2020; Imam et al., 2024). Through the effectiveness of this monitoring function, independent commissioners are expected to limit greenwashing practices by ensuring that disclosed sustainability information reflects actual environmental performance (Septiana & Puspawati, 2022).

Based on the results of hypothesis testing, the presence of independent commissioners is found to weaken the positive effect, as indicated by the negative coefficient of the interaction variable between greenwashing and independent commissioners, amounting to −0.007946. However, the probability value obtained is greater than the significance level (0.0815 > 0.05), indicating that the moderating effect is not statistically significant. Thus, the second hypothesis in this study is not

supported. These findings suggest that independent commissioners have not been able to optimally moderate the relationship between greenwashing and firm value. In other words, the presence of independent commissioners has not been fully effective in limiting greenwashing practices or improving the quality of ESG disclosures.

These findings are consistent with the study by Zachary & Fuad (2025) which shows that independent commissioners have not been able to significantly influence ESG disclosure. In addition Sumar & Ratmono (2024) also found that independent commissioners have a positive but insignificant effect on the quality of ESG disclosure. These findings reinforce the indication that the role of independent commissioners in the context of sustainability disclosure has not yet been effectively implemented.

This condition may be attributed to the limited effectiveness of the monitoring function carried out by independent commissioners. In some cases, their independence tends to be merely formalistic if it is not supported by managerial integrity and an adequate supervisory system, resulting in monitoring that is not fully substantive (Anggraini et al., 2025; Farilla & Abiprayu, 2025). Moreover, limited access to information and low awareness of environmental issues also hinder efforts to mitigate greenwashing practices. Consequently, although independent commissioners are structurally present as a corporate governance mechanism, their role in suppressing greenwashing has not been optimally realized.

Conclusion

Based on the results of the study, it can be concluded that greenwashing practices have a positive effect on firm value among companies listed on the Indonesia Stock Exchange (IDX). This finding indicates that the market still responds positively to sustainability information disclosed by companies, even though such information may be symbolic and does not fully reflect actual environmental performance. This condition may occur due to weak sustainability reporting regulations and the absence of mandatory independent assurance. In addition, stakeholders' limited ability to identify greenwashing practices, along with the presence of information asymmetry, leads investors to rely primarily on the information presented by companies. As a result, greenwashing can enhance corporate reputation and investor trust in the short term, which in turn increases firm value.

Furthermore, the results of this study show that independent commissioners are not able to significantly moderate the relationship between greenwashing and firm value. Although the direction of the interaction coefficient is negative indicating that independent commissioners have the potential to weaken the positive effect of greenwashing the effect is not statistically significant. This suggests that the role of independent commissioners as a monitoring mechanism has not been optimally implemented. Limitations in the effectiveness of the monitoring function, the tendency for independence to be merely formalistic, and the lack of specific competence in assessing the quality of sustainability disclosures are factors that hinder the ability of independent commissioners to detect and limit greenwashing practices.

This study provides several practical implications for companies, investors, and regulators. For companies, these findings highlight the importance of presenting more transparent sustainability disclosures that accurately reflect actual ESG performance in order to maintain stakeholder trust in the long term. For investors, the results suggest the need for more critical and comprehensive evaluations of ESG information disclosed by companies, not only in terms of the extent of disclosure but also its alignment with actual sustainability performance. For regulators, these findings underscore the importance of strengthening sustainability reporting standards and guidelines to be clearer and more consistent, including considering verification or audit mechanisms for sustainability reports to enhance transparency and minimize the potential for greenwashing practices in corporate reporting.

This study has several limitations that should be considered when interpreting the results. The research period, which covers only four years, along with the limited availability of ESG score data from Refinitiv Eikon, results in a relatively small sample size. Consequently, the study may not fully capture

long-term conditions and may limit the generalizability of the findings. In addition, this study only employs one corporate governance mechanism independent commissioners as a moderating variable, whereas other governance mechanisms such as audit committees, institutional ownership, or board characteristics may also influence corporate managerial practices.

Based on these limitations, future research is recommended to extend the observation period and utilize more diverse ESG data sources to increase the sample size. This is expected to produce more representative results and provide a more accurate depiction of long-term conditions. Furthermore, future studies are encouraged to incorporate additional moderating variables representing corporate governance mechanisms, such as audit committees, institutional ownership, or audit quality. This would enable a more comprehensive understanding of the role of corporate governance in moderating the relationship between greenwashing and firm value.

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