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Research Article

The Influence of Capital Structure, Profitability, and Good Corporate Governance on Greenwashing in Infrastructure Companies in Indonesia

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ABSTRACT

This research aims to analyze the influence of capital structure, profitability, and Good Corporate Governance (GCG) on greenwashing practices among infrastructure companies listed on the Indonesia Stock Exchange during 2023–2024. The independent variables used in this study consist of profitability (Return on Assets), capital structure (Debt to Equity Ratio), the frequency of board of commissioners' meetings, the proportion of independent commissioners, and the presence of an audit committee. The findings reveal that capital structure exerts a significantly negative effect on greenwashing practices. Meanwhile, profitability, the proportion of independent commissioners, the number of board meetings, and the existence of an audit committee show negative but statistically insignificant effects on greenwashing. Taken together, all independent variables collectively have a significant influence on greenwashing, with a coefficient of determination of 43.6%. These outcomes suggest that capital structure is the most influential determinant of greenwashing practices within Indonesia's infrastructure sector, whereas the current implementation of GCG mechanisms has yet to effectively curb such practices.

Keywords: Capital structure; Good Corporate Governance; Greenwashing; Profitability

1. INTRODUCTION

Nowadays, businesses must consider not just the financial side of things, but also the societal and ecological effects of what they do in order to stay in business. This is because modern society places a premium on social responsibility and environmental sustainability. Having said that, not every business is serious about being environmentally responsible, because it might deceive stakeholders and obstruct attempts at sustainable development, the problem of greenwashing the practice of presenting oneself as environmentally sensitive without really taking any action has arisen as a major challenge for the corporate sector (Aptasari et al. 2024).

The infrastructure sector has come under particular scrutiny due to its substantial impact on the environment, such as the exploitation of natural resources, increased carbon emissions, and waste production from construction activities (Kaja & Goyal, 2023). This issue is becoming increasingly important because the infrastructure sector, in addition to being a top priority in national development, also plays a major role as a contributor to carbon emissions. Concerning capital structure, profitability, and Good Corporate Governance (GCG), this research zeroes in on the elements that push businesses to partake in greenwashing. Several research have shown that there is a connection between business sustainability practice and financial and governance aspects. For example, (Givari et al. 2024) states that a high capital structure can create financial pressure that encourages management to project a positive image. Companies with high profitability have the capacity to implement sustainability programs in a tangible manner. However, many companies use greenwashing strategies to enchance their public image, as stated in (Nisa & Sisdianto, 2025). Meanwhile, (Husna et al. 2023) provides evidence that robust GCG can lessen the likelihood of sustainability data manipulation.

A company's capital structure is its framework for long-term financing, which includes both debt and equity financing (Erlangga, 2025). In this analysis, the Debt to Equity Ratio (DER) was utilized (Suryani et al. 2024). The end outcome of several rules and managerial choices about the allocation of resources and the use of capital in the course of a business's operational operations is its profitability (Purbaningsih, 2024). This analysis uses the Return on Asset (ROA) ratio to determine profitability (Hans & Anastasia, 2024). At the same time, GCG is a reliable approach to managing a company that protects the stakeholders' interest of both internal stakeholders (shareholders) and external stakeholders (creditors) in a business (Muid, 2017). Among the factors utilized as metrics in GCG studies are the frequency of board of commissioners

(RDK) meetings, the proportion of independent commissioners (DKI), and the existence of an audit committee (KA). (Wardati et al. 2021). Furthermore, this study also refers to various previous studies, namely, (Zhang et al. 2023) which shows a negative correlation between environmental performance and the level of greenwashing in China. (Wahyuni & Cipta, 2022) which examines the impact of GCG and profitability on company value. (Putriningtyas & Ubaidillah, 2024) which highlights the role of green innovation in company value. (Meilani & Mutmainah, 2025) which analyzes the impact of greenwashing on investment decisions.

Prior research has mostly focused on the industrial, finance, and environmental performance industries when discussing greenwashing. So far, no study has examined greenwashing in Indonesian infrastructure firms with a focus on how capital structure, profitability, and GCG interact with one another. The uniqueness of this model for explaining greenwashing activities is enhanced by the fact that it combines two aspects of governance and finance (capital structure and profitability) in a single framework. This study aims to answer the core question of how factors such as capital structure, profitability, and GCG (independent commissioner proportion, board of commissioners meeting frequency, and audit committee existence) affect greenwashing in Indonesia's infrastructure sector. The study aims to examine how Good Corporate Governance affects greenwashing practices by empirically investigating the relationships among capital structure, profitability, and the implementation of GCG principles. Researchers hope that this study will help advance both theory and practice in the area. Academically, this research covers a gap in existing academic studies by adding to the body of knowledge on environmental accounting and corporate management; more specifically, it applies this body of knowledge to the infrastructure sector in Indonesia, an area where previous studies have failed to adequately address this issue. Practically speaking, this study's results should be helpful for a number of people. Investors can use them to gauge a company's credibility when it comes to its sustainability promises. Company management can use them to improve governance, increase sustainable profitability, and strengthen capital structure. And regulators can use them to strengthen transparency policies in sustainability reporting and oversee greenwashing practices.

2. RESEARCH METHOD

A quantitative technique based on causality is utilized in this work. This study will employ numerical data and analysis of preset factors to identify their effect and relationship, so the quantitative technique was selected (Barroga et al. 2023). The purpose of this study is to clarify greenwashing in infrastructure companies listed on the Indonesia Stock Exchange. This study focuses on one dependent variable, greenwashing practices, and three independent variables, capital structure, profitability, and GCG. Sustainability in the environment and social responsibility are becoming more important, which led to the selection of this item. As a sustainability strategy, firms' attempts to seem environmentally conscious without actually doing anything are becoming more problematic (Putra & Maulana, 2025). Companies trading on the IDX that are involved in the infrastructure industry are the focus of this research. Companies in the infrastructure sector consume natural resources, emit carbon emissions, and produce trash from construction (Ravinder, 2025), all of which have a significant influence on the environment. For this reason, these issues were chosen.

The study's population consists of infrastructure-related businesses that were listed on the Indonesia Stock Exchange (IDX) in 2023–2024. Infrastructure firms that were listed on the IDX between 2023 and 2024 were taken into account for the population. These businesses satisfy three requirements: (1) Throughout that period, they regularly released sustainability and yearly reports; (2) they had complete data related to research variables, including capital structure, profitability, GCG indicators, and greenwashing indicators; and (3) they had transparency regarding their operations. We used a non-probability selection strategy based on purposive sampling to pick our samples. The study's data was relevant, thorough, and collected using a purposeful sampling method to guarantee accuracy. After these criteria were used for selection, the final sample size was established.

Table 1. Research Sample Data

Description	Number
Population: "Infrastructure sector companies listed on the Indonesia Stock Exchange (IDX) in the 2023-2024 period	**70**
Sampling based on criteria (purposive sampling):	
Infrastructure companies that failed to release annual reports during the period	(10)
Infrastructure companies that did not publish sustainability reports during that period	(19)
Companies that do not have complete data related to the variables studied, namely capital structure, profitability, GCG indicators, and greenwashing indicators	(3)
Companies that have a loss score related to the variables studied	(10)
Number of research samples	28
Number of years of research	2
Total number of samples	56

This study makes use of secondary data, which is collected from existing data sources, namely annual reports and sustainability reports. Secondary data was chosen because all variables are measured using numbers or ratios, which are then analyzed statistically. Data collection techniques was retrieved by consulting the respective companies' official websites

and the Indonesia Stock Exchange (IDX). A list of infrastructure sectors was compiled for the purpose of population data collection, and yearly and sustainability reports were collected according to established sampling standards. To back up the legitimacy of the data acquired, all data was recorded and maintained. IBM SPSS Statistics, a statistical program for the social sciences, was used to analyze the data for this study. T-tests, f-tests, determination coefficients, and traditional tests for normality, multicollinearity, heteroscedasticity, and autocorrelation were among the tests used to assess hypotheses.

The following is the formulation of the study's preliminary hypothesis: H1: Greenwashing techniques are positively impacted by capital structure; H2: Greenwashing tactics are positively impacted by profitability; H3: Greenwashing tactics are negatively impacted by the percentage of independent commissioners; H4: Greenwashing practices are positively impacted by the quantity of board of commissioners meetings; H5: Greenwashing tactics are negatively impacted by the presence of an audit committee.

3. RESULTS AND DISCUSSION

3.1 Descriptive Analysis Results

A synopsis of the study's features, including the variables examined, was provided by means of descriptive analysis (Mulyani et al. 2024). You can see the mean score and standard deviation in **Table 2** based on the data analysis results of 56 observations.

Table 2. Descriptive Analysis

	Mean	Std. Deviation	N
SQRT_Y	.7247	.35215	56
Capital_Structure	1.2746	1.19789	56
Profitability	.0535	.04581	56
DKI	.4757	.14841	56
RDK	10.1964	5.42861	56
Audit_Committee	3.2321	.71328	56

Recording a mean figure of 0.7247 and a standard deviation amounting to 0.35215, the data for the greenwashing variable is fairly distributed around the mean. The capital structure variable reveals a wide range of usage among organizations, with a standard deviation of 1.19789 and an average of 1.2746. Also, the profitability variable is pretty evenly distributed with a mean of 0.0535 and a standard deviation of 0.04581, suggesting that the company's profit level is tiny but consistent. With a standard deviation of just 0.14841 and an average of 0.4757, the independent board of commissioners variable indicates that about 47.57% of board members are independent.

The board of commissioners meetings variable shows a high level of intensity with substantial variance between organizations, with a mean value of 10.1964 and a standard deviation of 5.42861. Also, with a standard deviation of 0.71328 and a mean of 3.2321 for the audit committee variable, we can see that there is very little variance in the average number of members of an audit committee, which is 3. Capital structure and board of commissioners meetings are two variables that stand out from the others, but generally speaking, most variables have very consistent data distribution, according to this descriptive analysis. Initial indicators of the Company's governance circumstances and financial features are provided by these data. To understand the relationship of each variable on the amount of transparency or performance investigated, regression analysis will be conducted.

3.2 Classical Assumption Test

3.2.1 Normality Test

Table 3. One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		56
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.26456445
Most Extreme Differences	Absolute	.112
	Positive	.112
	Negative	-.078
Test Statistic		.112
Asymp. Sig. (2-tailed)		.076[c]

The normality test results, shown in **Table 3**, show that the residual data has a normal distribution since the Asymp. Sig. (2-tailed) value is 0.076 (> 0.05). This indicates that there is no discernible difference between the residual data distribution and the normal distribution pattern, which means that the regression model has satisfied the normality assumption. Once this condition is satisfied, the regression model may proceed with the analysis.

3.2.2 Multicollinearity Test

Table 4 displays the results of the multicollinearity test, which shows that all independent variables have tolerance values **greater** than 0.100. These variables include capital structure (0.846), profitability (0.798), independent board of commissioners (DKI) (0.977), board of commissioners meeting (RDK) (0.698), and audit committee (KA) (0.714).

Table 4. Multicollinearity Test

Models		Collinearity Statistics	
		Tolerance	VIF
1	Capital_Structures	.846	1.182
	Profitability	.798	1.254
	DKI	.977	1.024
	RDK	.698	1.433
	KA	.714	1.401

With scores of 1.182 for capital structure, 1.254 for profitability, 1.024 for independent board of commissioners (DKI), 1.433 for board of commissioners meeting (RDK), and 1.401 for audit committee (KA), all variables display variance inflation factor (VIF) scores below 10. Hence, the study's regression model does not suffer from multicollinearity issues, as there is no substantial correlation between the independent variables.

3.2.3 Heteroscedasticity Test

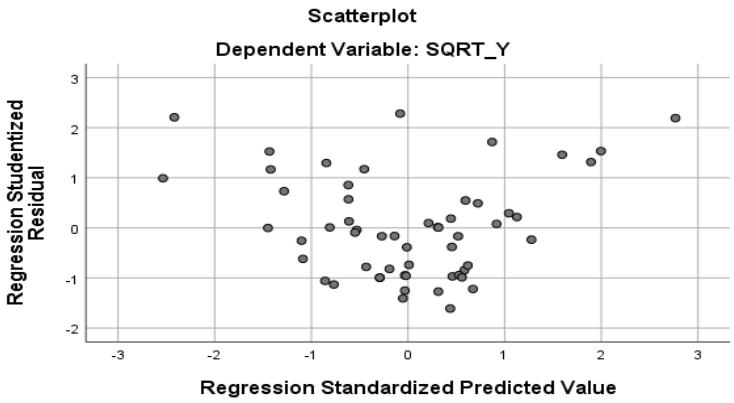

Figure 1. Heteroscedasticity Test

There is no discernible pattern to the residual points' distribution in the horizontal zero-line area, according to the heteroscedasticity test findings. The residual variance tends to remain constant, as seen by this distribution pattern (homoscedastic). Hence, the homoscedasticity criterion is satisfied by this regression model.

3.2.4 Autocorrelation Test

The Durbin-Watson (d) score is 1.350, as shown in **Table 5**, which contains the results of the autocorrelation test. The range of dU and (4 - dU) or 2.27 is not satisfied by 1.350 when contrasted with the highest limit (dU = 1.73) and lower limit (dL = 1.44). Thus, it is clear that positive autocorrelation is indicated by this regression model.

Table 5. Autocorrelation Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.660[a]	.436	.379	.27748	1.350

The magnitude dimension describes the level of task difficulty that individuals believe they are capable of handling. In other words, it reflects students' confidence in their ability to complete tasks across varying levels of complexity. The strength dimension pertains to students' perseverance and determination when performing different tasks. Meanwhile, the generality dimension relates to students' beliefs in their capability not only to carry out specific tasks but also to perform effectively across a wider variety of activities and circumstances.

3.3 Hypothesis Testing

3.3.1 Partial Test (t-Test)

Table 6. T-Test Results

Model		t	Sig.
1	(Constant)	4.944	.000
	Capital_Structure	-5.817	.000
	Profitability	-.804	.425
	DKI	1.282	.206
	RDK	.487	.628
	Audit_Committee	-1.505	.139

At the 0.000 level of significance, the capital structure variable exhibited a t-score of -5.817, as shown in **Table 6** of the T-test findings. It is reasonable to accept H01 and reject H1 due to the fact that the significance value is lower than 0.05. The conclusion shows that greenwashing is negatively affected by the capital structure that is determined by the Debt to Equity Ratio (DER). In other words, a higher DER value indicates that corporations are less likely to engage in greenwashing. Furthermore, the profitability variable has a statistically significant t-value of -0.804 at 0.425. Since 0.425 > 0.05, the score is more than 0.05, we may reject H2 and accept H02. This study found a negative correlation between greenwashing and return on assets (ROA), however it is not statistically significant. This suggests that a company's propensity to participate in greenwashing is unrelated to its profitability.

The variable that represents the percentage of independent board members then displays a t-score of 1.282 with a significance level of 0.206. With a significance level of 0.206 > 0.05, we may accept H03 and reject H3. This research suggests that greenwashing activities are unaffected by the ratio of independent board members, suggesting that increasing the number of independent board members is not currently productive in preventing such tactics. The t-value for the board of commissioners meeting variable is 0.487, and the level of significance is 0.628. We accept H04 and reject H4 due to the fact that the significance score is more than 0.05 (0.628 > 0.05). According to this criterion, greenwashing is unaffected by the frequency or length of board of commissioners meetings. The audit committee variable's final result revealed a significance level of 0.193 and a t-value of -1.505. We accept H05 and reject H5 due to the fact that this score is more than 0.05 (0.139 > 0.05). If a company has an audit committee, it is less likely to engage in greenwashing. However, the effect is not yet statistically significant, but it does show that having an audit committee has a negative but not substantial impact on greenwashing practices.

Table 7. F Test Results

Model		F	Sig.
1	Regression	7.717	.000[b]
	Residual		
	Total		

3.3.2 Simultaneous Test (F-Test)

Table 8. Results of the Coefficient of Determination Test

R Square	Adjusted R Square
.436	.379

The F-test produced a significant result of 7.717 at the 0.000 level, as **Table 7** demonstrates. GCG factors that have a substantial impact on greenwashing techniques include the presence of an audit committee, the frequency of board of commissioners meetings, the proportion of independent commissioners, and profitability. Since the significance score is less than 0.05, it may be said that all of these independent factors cooperate.

3.3.3 Determination Coefficient test

The outcome variable, greenwashing, could be defined via the independent variables, capital structure, profitability, and GCG metrics (consistency of an audit committee, number of independent commissioners, and frequency of board meetings), with a R Squared score of 0.436 (**Table 8**). This indicates that the relationship between these variables is 43.6% strong. At the same time, other factors not included in this study account for 56.4%.

3.4 Discussion

3.4.1 Simultaneous Influence of Independent Variables on Greenwashing Practices

The F-test results, which have a significant score of 0.000 (< 0.05), show the concurrent effects of capital structure, profitability, and GCG indicators (intensity of board of commissioners meetings, ratio of independent commissioners, and existence of an audit committee) on greenwashing practices. These findings show that other variables, including regulatory pressure, organizational culture, and management's degree of environmental consciousness, account for 56.4% of the variance in greenwashing levels, while financial and corporate governance variables account for 43.6%. This finding confirms that the issue of greenwashing is not only related to financial performance, but also closely related to effective governance mechanisms. The synergy between sound financial management and a strong GCG system is an important factor in reducing manipulative practices (Bu et al. 2024) and improving the credibility of sustainability reporting.

3.4.2 The Influence of Capital Structure on Greenwashing Practices

The partial test results show that the capital structure variable, represented by the Debt to Equity Ratio (DER), has a negative t-value (-5.817) and a significance score of 0.000 (<0.05) (t-test). Based on these results, it's clear that financial structure hinders greenwashing efforts. Put simply, a lower likelihood of greenwashing is associated with a higher DER. This research disproves the null hypothesis that greenwashing is positively impacted by capital structure. On the other hand, a financial risk viewpoint provides an explanation for these results. Opportunities for greenwashing are often limited for companies with high levels of debt because of the external demand from creditors and investors to maintain openness and accountability (Simon et al. 2025). Consistent with a research conducted by (Suryani et al. 2024) which states that companies with high debt burdens are relatively more cautious in demonstrating sustainability performance because they consider the risks to their reputation and market confidence. Thus, a more conservative capital structure can serve as a mechanism to control manipulative behavior in sustainability reporting. This condition indicates that infrastructure companies with high debt ratios actually show a more cautious commitment to environmental disclosure in order to maintain stakeholder trust.

3.4.3 The Influence of Profitability on Greenwashing Practices

With a t-score of -0.804 and a significance value of 0.425, which is more than 0.05, the profitability variable that was evaluated using Return on Assets (ROA) is statistically significant. This research shows that greenwashing is negatively affected by profitability, however the effect is not very strong. Put simply, the likelihood of greenwashing by a corporation is unrelated to its profitability. Companies with high profitability have sufficient financial capacity to implement concrete sustainability programs, so they do not need to project a false image of environmental concern (Sinaga & Dalimunthe, 2025). On the other side, greenwashing and other symbolic measures may help low-profit enterprises keep their public image intact. Its little impact suggests, however, that other variables, such governmental pressure or business reputation, may have a greater impact on greenwashing (Persakis et al. 2025). These outcomes are consistent with the study's conclusions (Cahyaningsih & Rahadiansyah, 2022) which states that high profitability reflects efficiency in managerial performance but does not always correlate with environmental transparency. Therefore, profitability is not the main determinant of greenwashing behavior in the infrastructure sector.

3.4.4 The Influence of the Proportion of Independent Board Members on Greenwashing Practices

The study's findings indicate that the ratio of independent commissioners does not significantly affect greenwashing practices, as indicated by a significance score of 0.206 (> 0.05) and a positive coefficient direction. These results show that the efficacy of having commissioners who are conceptually independent still isn't very high in the infrastructure sector, even if they help to enhance oversight roles and reduce manipulative behaviors. This may be due to the formal nature of the appointment of independent board members, where most of their roles are merely symbolic and not yet fully independent from management influence. This condition is consistent with the findings of the study (Ekaputri & Eriandani, 2022) and (Deniza et al. 2023) They claim that while having an independent board of commissioners is crucial, their access to internal corporate information is often inadequate, making them unable to effectively ensure openness. Consequently, while having an independent board of commissioners is a component of GCG implementation, it might be even more successful in preventing greenwashing if it were subject to stricter monitoring and had greater autonomy (Nurhakiki et al. 2024).

3.4.5 The Influence of the Number of Board of Commissioners Meetings on Greenwashing Practices

Regarding greenwashing strategies, the frequency of board of commissioners meetings is not a significant variable (p=0.628, > 0.05). The findings indicate that holding meetings at a high frequency may not necessarily be the best strategy to ensure

that corporate regulations are being monitored effectively, especially when it comes to sustainability reporting. Frequent board of commissioners meetings do not guarantee improved decision quality, especially if the meeting agenda does not focus on environmental or governance issues (Kusumawardani et al. 2023). These results support the findings of (Deniza et al. 2023) according to which the content, and not the frequency, of board of commissioners meetings determines how productive they are. Accordingly, this research reveals that the frequency and how long board meetings run have little bearing on the success or failure of initiatives to curb greenwashing. The implication is that companies need to emphasize the quality of discussions and oversight in board meetings, not just the quantity of meetings.

3.4.6 The Influence of the Audit Committee on Greenwashing Practices

With a score of 0.139 (> 0.05), the audit committee presence variable is negatively correlated. This result suggests that audit committees have a negative effect on greenwashing methods, but it is not a significant one. Put simply, there is no good statistical evidence that there is a significant reduction in the chance of greenwashing when the number of audit committee members in a firm is increased. Maintaining honesty, openness, and responsibility in financial reporting is a key responsibility of audit committees (Safa'at & Arsjah, 2025). But its ability to curb greenwashing depends on how capable, self-reliant, and engaged its members are (Lendengtariang & Bimo, 2022). Having an audit committee in place can help stop report manipulation techniques, but it needs strong independence and competence to do its job (Wardati et al. 2021) and (Husna et al. 2023). Hence, to fortify the internal control system and forestall future instances of greenwashing, it is essential to enhance the audit committee's quality and engagement, even though its impact is now insignificant.

4. CONCLUSION

Investigating the effects of capital structure, equity, and "Good Corporate Governance (GCG)" on greenwashing practices in infrastructure companies listed on the Indonesia Stock Exchange between 2023 and 2024 is the aim of this study. Through a multiple linear regression analysis conducted on 56 observations from 28 companies, a number of important findings were obtained that form the basis for drawing conclusions, identifying limitations, and providing direction for future research and practice. With a coefficient of determination score of 43.6%, the study's findings show that all independent variables capital structure, profitability, the percentage of independent board members, the frequency of board meetings, and the presence of an audit committee have a significant impact on greenwashing practices. This implies that over half of the variance in the degree of greenwashing activities in Indonesia's infrastructure sector may be explained by the mix of financial and corporate governance issues. However, only capital structure has a considerable negative impact on greenwashing; other factors have a negligible negative impact. These findings reinforce the argument that external pressure due to high debt levels encourages companies to maintain transparency and accountability, thereby being more cautious in their sustainability disclosures. Thus, a more conservative capital structure can serve as a disciplinary mechanism against manipulative behavior in environmental reporting. Profitability was found to have a negative but not substantial impact on greenwashing practices. This indicates that a company's ability to generate profits does not necessarily determine its tendency to engage in or avoid greenwashing practices. Highly profitable companies can implement genuine sustainability programs without the need to create a false image, while less profitable companies may be motivated to engage in greenwashing to strengthen their reputation. However, because this relationship is not significant, profitability cannot yet be considered a major factor in explaining greenwashing behavior in the infrastructure sector.

Additionally, it has been demonstrated that GCG indicators such as the percentage of independent board members, the frequency of board meetings, and the presence of an audit committee do not significantly influence greenwashing activities. This situation demonstrates how the use of Good Corporate Governance (GCG) principles is still only symbolic and has not improved environmental transparency to the best of its ability. Independent oversight is not always ensured by the presence of an independent board of commissioners, particularly if their participation in strategic decision-making is still restricted. In a similar vein, holding frequent board of commissioners meetings does not always translate into more effective monitoring since the caliber of the conversations and the content of the deliberations matter more than how intense the sessions are. Meanwhile, the audit committee, which should function as the guardian of financial reporting and sustainability accountability, has not shown a significant role, possibly due to limitations in competence, independence, or meeting frequency in carrying out its functions.

Conceptually, the study's findings support the idea that, in contrast to governance considerations, financial factors specifically, capital structure have a greater impact on business behavior linked to greenwashing. These findings suggest that, in the framework of stakeholder theory, external pressure from creditors and investors might be a more effective supervision tool than internal business processes, which are nevertheless subpar. Therefore, strengthening a substantive governance system, rather than just an administrative one, is important so that the oversight function can operate efficiently in suppressing greenwashing practices. This study has several limitations that must be considered. First, the relatively short observation period of two years (2023–2024) restricts the study's capacity to capture the long-term dynamics of greenwashing behavior and shifts in businesses' use of GCG. Second, the degree of corporate disclosure determines the use of secondary data from sustainability and annual reports, therefore the subjectivity of disclosure may have an impact on the outcomes of greenwashing indicator assessments. Third, this study only covers five independent variables, so there

are still many other factors such as regulatory pressure, organizational culture, institutional ownership, and corporate sustainability orientation that have not been included in the model. Fourth, the measurement of GCG in this study is limited to quantitative indicators of without considering the quality of implementation and effectiveness of supervision, so the results may not fully reflect actual governance practices.

Based on these results and limitations, there are several practical implications and opportunities for future research. For company management, the results of this study indicate the importance of sound and transparent capital structure management as part of a sustainability strategy. Companies with optimal debt ratios tend to be more disciplined in their environmental information disclosure due to strict external oversight. In addition, the application of GCG principles needs to be strengthened not only administratively but also through improving the competence, independence, and integrity of management bodies such as the board of commissioners and the audit committee. Thus, greenwashing practices can be minimized through a combination of financial discipline and substantive governance.

For investors and stakeholders, the findings of this study can be used as a basis for evaluating the credibility of sustainability reports and the quality of corporate governance before making investment decisions. Investors are expected to not only focus on financial performance but also assess the extent to which companies are truly committed to environmental responsibility. For future research, it is recommended that the scope of the research be expanded beyond the infrastructure sector to include other industries with high environmental exposure, such as manufacturing and energy. Future research could also add mediating or moderating variables such as regulatory pressure, corporate reputation, or institutional ownership to gain a more comprehensive understanding of the factors that influence greenwashing practices. The application of mixed methods, combining quantitative and qualitative approaches, can provide a deeper understanding of companies' motives and strategies in greenwashing, as well as assess the effectiveness of GCG implementation in practice. Overall, this study confirms that greenwashing practices in Indonesian infrastructure companies are still influenced by suboptimal financial conditions and governance. Capital structure has been proven to have a significant influence on companies' tendency to engage in greenwashing, while profitability and GCG mechanisms have not yet shown a significant role. Therefore, increasing transparency, strengthening governance, and consistency in external supervision are important steps to create more authentic and credible sustainability practices in the future.

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