Green Accounting and Public Share Ownership as Determinants of ESG-Based CSR Disclosure: Evidence from Indonesia's Coal Mining Sector

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ABSTRACT

This study examines the effect of Green Accounting and Public Share Ownership on ESG-based Corporate Social Responsibility (CSR) disclosure in the Indonesian coal mining subsector during the 2022–2024 period. The coal mining industry is characterized by high environmental risk and increasing pressure related to sustainability reporting and environmental accountability. This study employs a quantitative approach using purposive sampling, resulting in 45 firm-year observations. ESG-based CSR disclosure is measured using a disclosure index aligned with GRI Standards 2021. Data analysis was conducted using multiple linear regression analysis. The results indicate that Green Accounting has a positive and significant effect on ESG-based CSR disclosure, implying that the integration of environmental costs into accounting systems enhances sustainability transparency. Meanwhile, Public Share Ownership has a negative and significant effect, suggesting that dispersed ownership structures may weaken long-term sustainability orientation and reduce disclosure commitment. These findings support Legitimacy Theory and Agency Theory in explaining ESG disclosure behavior in environmentally sensitive industries. This study contributes to sustainability accounting literature by providing empirical evidence regarding the role of internal environmental commitment and ownership structure in shaping ESG-based CSR disclosure practices within Indonesia's coal mining sector.

Keywords: *Green Accounting, ESG-based CSR Disclosure, Public Share Ownership, Coal Mining Sector, Sustainability Reporting.*

1. INTRODUCTION

Environmental sustainability has become one of the most critical global concerns in the modern business environment. Companies are increasingly expected to demonstrate accountability not only in terms of financial performance but also regarding environmental and social responsibility. This expectation is particularly relevant for environmentally sensitive industries such as coal mining, where operational activities contribute significantly to environmental degradation, carbon emissions, land exploitation, and ecological disruption.

In Indonesia, the coal mining sector plays a strategic role in national economic development through export revenues, employment opportunities, and energy supply. However, the sector is also frequently associated with environmental controversies, including deforestation, water pollution, and land reclamation issues. Consequently, mining companies face increasing pressure from regulators, investors, and society to improve sustainability performance and enhance transparency regarding environmental and social impacts.

In response to these pressures, ESG-based Corporate Social Responsibility (CSR) disclosure has emerged as an important mechanism for communicating sustainability commitments to stakeholders. ESG disclosure enables companies to provide information regarding environmental management, social responsibility, and governance practices more comprehensively and transparently. International frameworks such as the Global Reporting Initiative (GRI Standards 2021) have become widely adopted benchmarks for sustainability reporting.

One important factor influencing ESG-based CSR disclosure is Green Accounting. Green Accounting refers to the integration of environmental costs and environmental management considerations into accounting systems and corporate reporting practices. Through Green Accounting, companies recognize environmental expenditures, waste management costs, environmental restoration obligations, and sustainability investments as part of corporate accountability.

Previous studies indicate that companies implementing Green Accounting tend to disclose sustainability information more comprehensively because environmental accounting practices encourage transparency and strengthen corporate legitimacy. Green Accounting also reflects organizational commitment toward sustainable development and environmental stewardship.

Another factor potentially influencing ESG disclosure is Public Share Ownership. Public ownership structure reflects the proportion of company shares owned by public investors. Higher public ownership may increase pressure for transparency due to broader stakeholder monitoring. However, dispersed ownership structures may also reduce long-term sustainability orientation because public investors often prioritize short-term financial returns rather than long-term sustainability initiatives.

Within emerging markets such as Indonesia, the relationship between public ownership and ESG disclosure remains inconsistent. Some studies suggest that public ownership encourages corporate transparency, while others argue that dispersed ownership weakens sustainability commitment due to lower monitoring effectiveness.

Despite the growing body of literature on ESG disclosure, prior studies have predominantly focused on financial determinants such as profitability, firm size, and leverage. Limited attention has been given to the role of Green Accounting as an internal sustainability commitment mechanism and Public Ownership as a governance characteristic, particularly in environmentally sensitive industries within emerging economies. Furthermore, empirical findings regarding ownership structure and ESG disclosure remain inconclusive. Therefore, this study addresses these gaps by examining the simultaneous influence of Green Accounting and Public Ownership on ESG-based CSR Disclosure in Indonesia's coal mining sector, which faces increasing pressure related to environmental accountability and sustainable development.

Table 1. State of The Art

Author	Country	Variable	Result
Buallay (2022)	UAE	ESG & Financial Performance	Positive
Raimo et al. (2023)	Italy	Governance & ESG Disclosure	Positive
Yoon et al. (2021)	South Korea	ESG Reporting	Positive
Putri et al. (2024)	Indonesia	Green Accounting & CSR Disclosure	Positive
This Study	Indonesia	Green Accounting + Public Ownership → ESG Disclosure	New Evidence

Source: Researcher, 2026

The state-of-the-art review indicates that previous studies have mainly focused on the influence of financial performance and governance mechanisms on ESG disclosure. Research examining the simultaneous role of Green Accounting and Public Share Ownership remains limited, particularly in environmentally sensitive industries within emerging economies. Therefore, this study provides new empirical evidence regarding the interaction between environmental accounting practices and ownership structure in shaping ESG disclosure behavior in Indonesia's coal mining sector.

This study contributes to the sustainability accounting literature in three ways. First, it extends Legitimacy Theory and Stakeholder Theory by examining Green Accounting as an internal sustainability commitment mechanism influencing ESG disclosure. Second, it provides empirical evidence regarding the role of Public Share Ownership in shaping sustainability reporting practices within emerging markets. Third, it offers new insights from Indonesia's coal mining industry, a sector characterized by substantial environmental risk and increasing sustainability reporting pressures. These contributions are expected to enrich the literature on ESG disclosure and provide practical implications for regulators, investors, and corporate decision-makers.

Based on the identified research gap and theoretical considerations, this study aims to examine the effect of Green Accounting and Public Share Ownership on ESG-based CSR Disclosure among coal mining companies listed on the Indonesia Stock Exchange during the 2022–2024 period.

1.1. Legitimacy Theory

Legitimacy Theory explains that companies seek to align their activities with societal expectations in order to maintain organizational legitimacy. Companies operating in environmentally sensitive industries often disclose environmental and sustainability information to demonstrate accountability and maintain stakeholder trust.

Coal mining companies face substantial environmental scrutiny due to their operational impacts. Consequently, companies are encouraged to improve sustainability transparency through ESG disclosure as a strategic mechanism to maintain legitimacy.

1.2. Agency Theory

Agency Theory explains the relationship between managers and shareholders within corporate governance structures. Information asymmetry between management and shareholders may create agency conflicts. Sustainability disclosure can reduce information asymmetry by increasing corporate transparency.

Public ownership structure may influence managerial decisions regarding ESG disclosure. Higher public ownership can create monitoring pressure, but dispersed ownership may weaken long-term sustainability orientation because investors often prioritize short-term profitability.

1.3. Stakeholder Theory

Stakeholder Theory was introduced by Freeman (1984) and argues that companies are responsible not only to shareholders but also to a broader range of stakeholders, including employees, customers, communities, regulators, investors, environmental organizations, and society at large. The theory emphasizes that corporate success depends on the ability of firms to create value for all stakeholders rather than focusing solely on maximizing shareholder wealth.

In the context of sustainability and ESG reporting, Stakeholder Theory suggests that companies disclose environmental, social, and governance information to address stakeholder expectations and strengthen corporate accountability. ESG disclosure serves as an important communication mechanism that enables firms to demonstrate their commitment to sustainable business practices and responsible corporate behavior.

For environmentally sensitive industries such as coal mining, stakeholder pressure is particularly significant due to the environmental and social impacts generated by business operations. Consequently, companies are encouraged to improve transparency through ESG-based CSR disclosure to maintain stakeholder trust, secure organizational legitimacy, and support long-term sustainability objectives.

Therefore, Stakeholder Theory provides a relevant theoretical foundation for explaining how Green Accounting practices and ownership structures influence ESG-based CSR Disclosure.

1.4. Green Accounting

Green Accounting refers to accounting practices integrating environmental costs into financial and managerial accounting systems. Environmental costs may include pollution prevention, waste management, environmental restoration, energy efficiency, and sustainability investments.

The implementation of Green Accounting demonstrates corporate environmental responsibility and enhances sustainability transparency. Companies adopting Green Accounting are more likely to disclose environmental information comprehensively.

1.5. Public Share Ownership

Public Share Ownership reflects the percentage of company shares owned by public investors. Ownership structure influences corporate governance, monitoring effectiveness, and managerial decision-making.

Companies with higher public ownership may experience greater external pressure to provide transparent disclosures. However, dispersed ownership may also reduce strategic sustainability focus because shareholders often prioritize short-term financial performance.

1.6. ESG-Based CSR Disclosure

ESG-based CSR disclosure refers to sustainability reporting that incorporates environmental, social, and governance dimensions. ESG disclosure has become increasingly important as stakeholders demand greater transparency regarding sustainability performance.

In this study, ESG disclosure is measured using indicators aligned with GRI Standards 2021.

1.7. Green Accounting and ESG-Based CSR Disclosure

Green Accounting encourages companies to recognize environmental costs and sustainability investments transparently. Companies implementing Green Accounting are more likely to disclose ESG information comprehensively because environmental accountability becomes integrated into corporate reporting systems.

Previous studies suggest that Green Accounting positively influences sustainability disclosure quality.

H1: Green Accounting has a positive and significant effect on ESG-based CSR Disclosure.

1.8. Public Share Ownership and ESG-Based CSR Disclosure

Public Share Ownership may influence corporate sustainability orientation and disclosure practices. While public shareholders may demand transparency, dispersed ownership can weaken long-term strategic commitment to sustainability initiatives.

In environmentally sensitive industries, short-term profit expectations from public investors may reduce sustainability disclosure commitment.

H2: Public Share Ownership has a negative and significant effect on ESG-based CSR Disclosure.

2. RESEARCH METHODS

Although ESG disclosure research has developed rapidly, empirical evidence examining the simultaneous role of Green Accounting and Public Share Ownership in shaping ESG-based CSR disclosure within Indonesia's coal mining sector remains limited. Previous studies provide inconsistent findings regarding sustainability disclosure determinants, particularly within environmentally sensitive industries.

This inconsistency indicates the existence of a research gap concerning the influence of internal environmental commitment and ownership structure on ESG-based CSR disclosure. Therefore, this study aims to examine the effect of Green Accounting and Public Share Ownership on ESG-based CSR disclosure among coal mining companies listed on the Indonesia Stock Exchange during 2022–2024.

This study employs a quantitative research approach to examine the relationship between Green Accounting, Public Share Ownership, and ESG-based CSR Disclosure. The population consists of coal mining companies listed on the Indonesia Stock Exchange during 2022–2024. Purposive sampling was used with the following criteria: (1) coal mining companies listed continuously during 2022–2024, (2) companies publishing annual reports and sustainability reports, (3) providing complete ESG-related disclosure data. Based on these criteria, 45 firm-year observations were obtained.

The dependent variable in this study is ESG-Based CSR Disclosure, which is measured using ESG disclosure index based on GRI Standards 2021. This index is calculated by comparing the total number of ESG items disclosed by the company with the total number of ESG items expected to be disclosed, using the formula ESGDI = Total ESG items disclosed / Total ESG items expected.

The first independent variable is green accounting, measured using environmental cost disclosure indicators, including environmental management costs, waste management expenses, energy efficiency expenditures, and environmental restoration costs. The second independent variable is public share ownership, measured as the percentage of shares owned by the public relative to the outstanding shares, using the formula Public Ownership = Public Shares / Total Outstanding Shares × 100%.

Data analysis in this study was conducted using multiple linear regression analysis with SPSS 25. The regression equation used is $Y = \alpha + \beta 1X1 + \beta 2X2 + e$, where Y represents ESG-based CSR disclosure, X1 represents green accounting, X2 represents public share ownership, α represents constant, β represents regression coefficient, e represents error term.

The research model explains the influence of Green Accounting and Public Share Ownership on ESG-based CSR Disclosure.

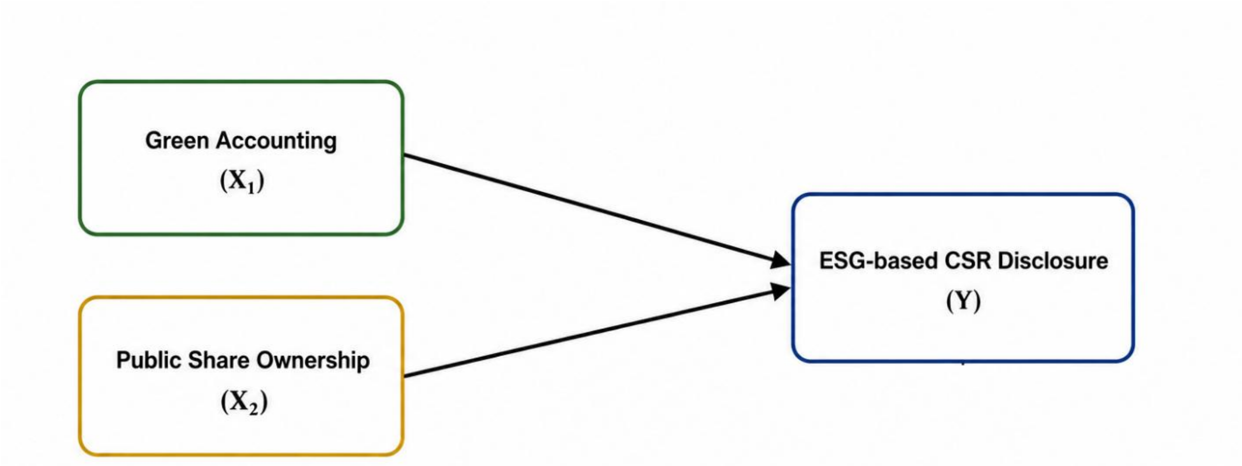

Figure 1. Research Model

Source : Researcher, 2026

Hypotheses:

- H1: Green Accounting positively affects ESG-based CSR Disclosure.
- H2: Public Share Ownership negatively affects ESG-based CSR Disclosure.

3. RESULT AND DISCUSSION

3.1. Descriptive Statistics

The descriptive analysis shows that coal mining companies in Indonesia have increasingly adopted ESG disclosure practices during the 2022–2024 period. However, disclosure quality varies significantly across companies.

Companies implementing stronger Green Accounting practices tend to disclose more comprehensive ESG information, particularly regarding environmental management and sustainability initiatives.

Meanwhile, companies with higher public ownership tend to prioritize short-term financial performance, resulting in lower sustainability disclosure orientation.

3.2. Multiple Regression Results

Table 2. Multiple Regression Result

Variable	B	Beta	t	Sig
Constant	3.564		5.416	0.000
Green Accounting	0.684	0.804	12.995	0.000***
Public Share Ownership	-0.378	-0.209	-3.221	0.003***

***Significance level < 0.01

The regression results indicate that Green Accounting positively and significantly affects ESG-based CSR Disclosure. This finding suggests that companies integrating environmental costs into accounting systems tend to provide more transparent sustainability disclosures.

The result supports Legitimacy Theory, which explains that companies use ESG disclosure to maintain legitimacy and stakeholder trust. Companies implementing Green Accounting demonstrate stronger environmental commitment, encouraging broader ESG reporting practices.

This finding is consistent with previous studies indicating that environmental accounting practices improve sustainability transparency and strengthen stakeholder confidence.

Meanwhile, Public Share Ownership has a negative and significant effect on ESG-based CSR Disclosure. This finding implies that companies with dispersed public ownership tend to have weaker long-term sustainability orientation.

The result supports Agency Theory, suggesting that dispersed ownership structures may reduce effective monitoring and strategic sustainability commitment. Public investors often prioritize short-term profitability, causing companies to focus more on financial performance than sustainability disclosure.

3.3. Discussion

The findings reveal that Green Accounting plays a crucial role in encouraging ESG transparency within environmentally sensitive industries. Coal mining companies face significant environmental pressures, making sustainability disclosure essential for maintaining legitimacy and stakeholder confidence. The implementation of Green Accounting reflects internal organizational commitment toward sustainability. Companies recognizing environmental costs transparently are more likely to disclose ESG information comprehensively.

Conversely, Public Share Ownership negatively affects ESG disclosure. This suggests that dispersed ownership structures may weaken sustainability orientation due to short-term financial pressures from public investors. The findings indicate that sustainability disclosure in Indonesia's coal mining sector is influenced more strongly by internal environmental commitment than by ownership dispersion.

4. CONCLUSION

This study examines the effect of Green Accounting and Public Share Ownership on ESG-based CSR Disclosure among coal mining companies listed on the Indonesia Stock Exchange during 2022–2024. The results indicate that Green Accounting positively and significantly affects ESG-based CSR Disclosure. This finding demonstrates that integrating environmental costs into accounting systems improves sustainability transparency and strengthens corporate legitimacy.

Meanwhile, Public Share Ownership negatively and significantly affects ESG-based CSR Disclosure. The finding suggests that dispersed ownership structures may reduce long-term sustainability orientation due to greater emphasis on short-term financial performance. Overall, this study confirms that internal environmental commitment and ownership structure play important roles in shaping ESG disclosure behavior in environmentally sensitive industries.

This study contributes to Legitimacy Theory by demonstrating that companies utilize ESG disclosure to maintain social legitimacy and stakeholder trust. The study also contributes to Agency Theory by explaining how ownership structures influence sustainability disclosure decisions. Additionally, this research enriches ESG and sustainability accounting literature by providing empirical evidence from Indonesia's coal mining sector.

The findings provide practical implications for several stakeholders. For companies, the resultsss indicate that they should strengthen Green Accounting implementation to improve sustainability transparency. For regulators, the results suggest that they should encourage standardized ESG reporting practices. For Investors, the result imply that they should evaluate sustainability commitment in investment decisions. Lastly, for policymakers, the result recommend that they should strengthen environmental disclosure regulations in high-risk industries.

This study is limited to coal mining companies listed on the Indonesia Stock Exchange during the 2022–2024 observation period, which may limit the generalizability of the findings to other industrial sectors. Additionally, this research only examines Green Accounting and Public Share Ownership as determinants of ESG-based CSR Disclosure. Other potential variables such as profitability, firm size, institutional ownership, environmental performance, and corporate governance mechanisms were not included in the research model. Future studies are encouraged to expand the research scope by incorporating additional explanatory variables and broader industrial sectors.

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