Impact of ESG Implementation on Financial Performance and Capital Structure

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Abstract

The realization of investments in Indonesia has surpassed 23.3% of the targeted amount for the year 2023, indicating a gradual economic recovery. This creates an opportunity for companies to attract more investors. The high level of investment is followed by certain responsibilities named Environmental, Social, and Governance (ESG) within their operational businesses. The implementation of ESG in Indonesia is further supported by the Indonesia Government through the Financial Services Authority Regulation No. 51/POJK.03/0217 and the establishment of the Carbon Exchange regulation in 2023. The objective of this study is to discern the influence of company ESG scores on companies' performance, measured through ROE and its capital structured, measured by DER. ESG data were obtained through access to Refinitiv Eikon, incorporating data from all sub-points within the three ESG aspects. The study population is companies listed on the Kompas100 index. Under the purposive sampling method, twenty-six companies have disclosed their ESG and financial data for the year 2017-2022. Statistical processing of data was conducted using SEM-PLS. The study concludes that E, S, and G scores individually influence ROE but do not have any significant impact on DER. This study offers insight to assist companies in formulating ESG implementation strategies, with a focus on environmental innovation for E aspect, product responsibility for the S aspect, and shareholder considerations for the G aspect.

Keywords: ESG, Implementation, Capital Structure, Financial, Performance.
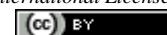
1. Introduction

During an economic recovery post the Covid-19, Indonesia has successfully demonstrated a growing realization of investment exceeding 23.3% of the targeted amount for the year 2023 [1]. The observed investment growth is also associated with the concept of ethical investment which the investment process is contingent upon companies meeting investor demands related to the sustainability of their operational activities [2]. These sustainability demands are known as the Environmental, Social, and Governance (ESG) framework [3]. Which emphasizing the company's responsibility, not only financially but also in achieving non-financial objectives concerning the surrounding environment over the long term [4]. Investors tend to avoid investing in companies that do not disclose ESG information, as it signifies the company's disregard for the three fundamental aspects in its business operations [5].

Attention to ESG has been taken into account by the Indonesian Government through the issuance of Financial Services Authority Regulation No. 51/POJK.03/2017 regarding the Implementation of Sustainable Finance for Financial Institutions, Issuers, and Public Companies [6]. Within this regulation, the government anticipates tangible manifestations from business entities to align economic, social, and environmental aspects in their operations. Consequently, the objectives of Sustainable Development in Indonesia can be realized [7]. This initiative is complemented by various other policies, including the Carbon Exchange regulation in 2023, which aims to restrict corporate carbon transactions, control global climate change, and realize sustainable economic development in Indonesia [8].

According to legitimacy theory, there exists a social contract between companies and the environment in which they operate [9]. Thus, the implementation of ESG can be a manifestation of a company's commitment to garner support from the broader community [10]. Due to the essential role of ESG as a consideration for investors, numerous companies in Indonesia, particularly those listed on the Kompas100 index, have embarked on ESG implementation [11]. Companies included in the Kompas100 index are market leaders on the Indonesia Stock Exchange with high market capitalization, making them prime targets for investors [12]. It has been demonstrated that Kompas100-listed companies exhibited strong performance in 2023 and successfully attracted investor interest [13]. Consequently, this study will be concentrated on companies listed on the Kompas100 index [14].

ESG represents a set of concepts directing corporate activities to align with sustainability aspects [14]. ESG's applied indicators differ from conventional measurement indicators as they take into consideration the long-term environmental and social impacts of a company's operational activities [15]. In Indonesia, companies' ESG scores are provided through measurements conducted by Refinitiv [16].

The first aspect of ESG, namely environmental (E), assesses a company's actions to protect the environment [17]. The E aspect is evaluated through indicators such as resource utilization, emissions, and environmental innovation [18]. The second aspect of ESG is social (S), evaluating the relationship between the company and other relevant communities. Aligned with stakeholder theory, a company is considered favorable when it can fulfill the diverse needs of its stakeholders [19]. Sub-point as the indicators for the S aspect include workforce, community, human rights, and product responsibility [20]. The third aspect of ESG is governance (G), assessing the effectiveness of the organizational structure within the company [21]. Indicators within the G aspect include shareholders, management, and CSR Strategy [22]. The implementation of ESG may not yield significant short-term impacts, but it has the potential to influence a company's performance and capital in the long term, for instance, through investor decisions and loyalty to invest [23]. Thus, despite the high costs associated with ESG implementation, companies persist in undertaking it to reap future economic benefits [24].

In this study, the focused economic benefits are financial performance and capital structure. According to the stakeholder theory, corporate responsibility is also focused on the interests of stakeholders. Corporate responsibility can also be demonstrated through the company's strong performance [25]. The financial performance of a company assesses its ability to manage its economic resources to generate returns for stakeholders. Return on Equity (ROE) is one of the ratios indicating a company's ability to provide returns to its shareholders [26]. Previous study conducted on the impact of ESG on financial performance success and corporate value by analyzing approximately 2,200 study studies [27]. The findings of study concluded that 90% of the studies indicated that ESG has an influence on a company's financial performance [28].

Previous studies have demonstrated varying effects of ESG on financial performance measured through ROE [29]. The E aspect within a company can potentially decrease the ROE due to high environmental costs [30]. However, contrasting views exist, asserting a positive impact, wherein a higher E score optimally correlates with increased ROE for the company [31]. The influence of the S aspect on ROE remains diverse, as prior studies have reported negative effects, while other study concludes that the S aspect can foster productivity, ultimately resulting in a positive impact on ROE for the company. Similarly, the impact of the governance (G) aspect on ROE varies, with previous study suggesting negative effects when governance is overly complex and asserting positive effects when governance prevents fraudulent activities and maximizes profits.

The implementation of ESG entails substantial costs, consequently, altering the financial structure of the company. Aligned with signal theory, investors discern that companies with robust ESG disclosures send signals of transparency and long-term corporate responsibility [32]. A long-term benefit of implementing ESG is the alteration of capital structure, as evidenced by the increasing contributions from investors to finance companies at a lower cost of capital compared to debt financing [33]. The capital structure can be approximated by the debt-to-equity ratio (DER), which calculates the proportion of debt capital to equity capital in a company [34]. Previous study indicating the influence of ESG on DER also demonstrates inconsistent results, with aspects showing significance or no impact on DER at all [35].

Some studies indicating a negative impact of E to DER because environmentally responsible companies are more attractive to investors and some conclude a positive impact due to easier access to debt. The impact of the S component on the company's DER is also varied, with study concluding a negative relationship that encourages companies to leverage equity and investor roles or a positive impact by increasing creditors' confidence in the company's debt-paying ability [36]. Some findings are a negative effect of aspect G, where good governance avoids risky debt financing, but also have positive effect because good governance promotes better creditworthiness of the company. Due to inconsistent results, further study is necessary. The study aims to investigate the individual effects of E, S, and G scores on ROE and DER. The results of this study can effectively advise the companies regarding the ESG implementation to enhance their competitive advantage in the long run, especially to attract investors.

Companies that successfully implement ESG can also contribute to achieve sustainable development goals in Indonesia. For investors, this study helps them understand the importance of assessing the ESG scores of the targeted companies before making the investment decision. For the public, study endeavors can elevate awareness regarding the significance of ESG implementation in the operational activities. ESG implementation should not be limited to large corporations but should involve all business entities, contributing to the achievement of Indonesia's National Development goals.

2. Research Method

This study adopts a quantitative causal study design, utilizing numerical data processed through statistical methods. The study population encompasses all companies listed on the Kompas100 Index from the implementation of the OJK Regulation in 2017 until 2022. The sample selection follows purposive sampling techniques as outlined by the previous researcher. The criteria for sample selection are presented in Table 1.

Table 1. Criteria for Study Sample

No	Criteria	No of Companies
1	Consistently listed in Kompas100 from 2017-2022	51
2	Incomplete presentation of ESG in Refinitiv Eikon for 2017-2022	(27)
	Total	24

Presented in Table 2 the measurement of each variable conducted in the study.

Table 2. Operationalization of Variables

No	Variable	Dimension	Scala
1	$X_1 = E$	Resource	Ratio
		Emissions	
		Environmental	
		Innovation	
	$X_2 = S$	Workforce	Ratio
		Community	
		Human Resource	
		Product Responsibility	
	$X_3 = G$	Shareholders	Ratio
		Management	
		CSR Strategy	
2	$Y_1 = ROE$	Net income / total equity	Ratio
	$Y_2 = DER$	Total liabilities / total equity	Ratio

Data analysis method employed in this study utilizes the Structural Equation Model (SEM) framework, specifically adopting the Partial Least Squares (PLS) technique. Given the examination of sub-point data related to ESG aspects, the SEM PLS approach is chosen as the preferred data analysis method by the researcher. SEM PLS proves advantageous in revealing the influence of multiple independent variables on several dependent variables simultaneously.
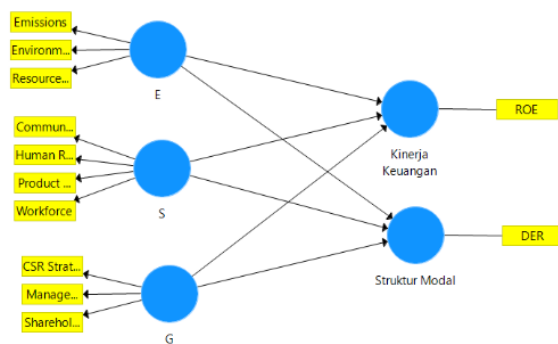

Figure 1. Research Model

There are two tests conducted for this study as presented in Table 3.

Table 3. SEM-PLS Tests

Model	Types of Tests	Criteria
Outer	Convergent Validity	AVE > 0.5
	Discriminant Validity	Fornell-Larcker ≥ 0.708
	Reliability	Composite Reliability ≥ 0.70
Inner	R^2	-
	Path Coefficient	P-values < 0.05
	Q^2	>0= tiny
		>0.025 = medium
		> 0.50 = significant

3. Result and Discussion

This study employs a two-stage SEM-PLS analysis to process study data. The first stage involves testing the validity and reliability of the data. The initial validity test conducted is the convergent validity to assess the accuracy of an indicator in representing a study variable, as determined by the Average Variance Extracted (AVE) score exceeding 0.5.

Table 4. Convergent Validity Results

Variable	AVE
E	0.543
S	0.659
G	0.416
ROE	1.000
DER	1.000

The results of the convergent validity test are presented in Table 4, indicating that all variables, except for variable G, meet the criteria.
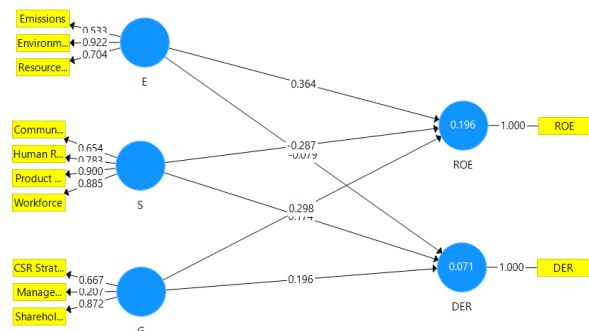

Figure 2. Convergent Validity Results

Based on Figure 2. G shows a low AVE score due to the indicator score of 0.207 in the Management indicators. A retest is performed by eliminating those indicators related to G.

Table 5. Convergent Validity Re-Test Results

Variable	AVE
E	0.543
S	0.659
G	0.603
ROE	1.000
DER	1.000

The results in Table 5 show that, after eliminating the Management indicators, variable G now satisfies the convergent validity criteria. Subsequently, discriminant validity is examined to ensure adequate differences among variables, as indicated by Fornell-Larcker

values greater than or equal to 0.708. Based on Table 6, all study variables pass the discriminant validity test, demonstrating clear and adequate differences among them.

Table 6. Discriminant Validity Results

Variable	Fornell-Larcker
E	0.737
S	0.812
G	0.776
ROE	1.000
DER	1.000

The next step involves assessing the reliability of the data by examining composite reliability scores, with values above 0.7 considered acceptable. Based on Table 7, all variables meet the reliability criteria, confirming the consistency of the study instrument.

Table 7. Reliability Results

Variable	Composite Reliability
E	0.773
S	0.884
G	0.749
ROE	1.000
DER	1.000

The second phase of data processing involves testing the outer model to examine the inter-variable relationships. The coefficient of determination (R^2) assesses the strength of the independent variable's influence on the dependent variable, with adjusted R^2 values presented in Table 8. The first outcome indicates that variables E, S, and G in the study exhibit a low correlation with ROE, as evidenced by the adjusted R^2 score of 0.051. Conversely, the second result indicates that variables E, S, and G show a higher correlation with DER, despite still at a low level, as reflected in the adjusted R^2 value of 0.181.

Table 8. R^2 Results

Y	R^2	Adjusted R^2
ROE	0.071	0.051
DER	0.198	0.181

Path coefficient testing is conducted using bootstrapping in the SEM-PLS, with Table 9 showing the results. If the P-values is < 0.01, it implies that the independent variable can influence the dependent variable.

Table 9. Path Coefficient Results

Path	P-values
E→ROE	0.008
S→ROE	0.018
G→ ROE	0.002
E→DER	0.580
S→DER	0.236
G →DER	0.067

It can be concluded that E influences ROE with a P-values of 0.008 (< 0.01). S affects ROE with a P-values of 0.018 (< 0.01). G, with a P-values of 0.002 (< 0.01), indicates that G influences ROE. However, for E, with a P-values of 0.580 (> 0.01), it suggests that E does not

affect DER. Similarly, S does not influence DER with a P-values of 0.236 (> 0.01). Finally, for G, there is no influence on DER with a P-values of 0.067 (> 0.01).
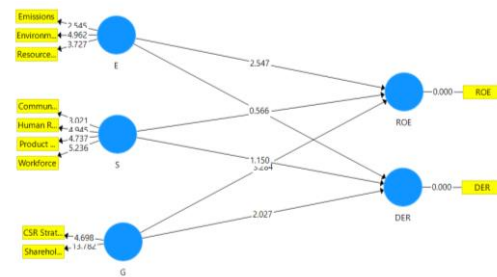
Presented below are the path coefficient results.

Figure 3. Path Coefficient Results

The final step in the outer model testing is the evaluation of the predictive value (Q^2), with Table 10 displaying the results. The Q^2 test is employed to validate the model's ability to demonstrate how well the observed values align with the study model. Q^2 scores for ROE and DER indicate moderate and small relevancies in the study model, respectively.

Table 10. Q^2 Results

Y	Q^2
ROE	0.160
DER	0.052

From table 9, aspect E has impacted the ROE with P-values of 0.008 (< 0.01). Currently, companies are expected to demonstrate environmental consciousness through energy-efficient resources, waste management, and various initiatives aimed at enhancing financial performance. This aligns with prior study indicating that higher E scores attract stakeholder attention, ultimately improving ROE quality in the long term. The sampled Kompas100-indexed companies across diverse sectors have already shown environmental compliance, utilizing eco-friendly materials, effective waste management systems, and adhering to environmental impact assessment standards. Environmental compliance shields companies from various costs such as sanctions and fines, thereby contributing to an increased ROE.

Aspect S affects ROE, with the P-values of 0.018 (< 0.01). This outcome aligns with previous study suggesting that S scores can attract stakeholder interest, consequently enhancing financial performance measured through ROE. Corporate social activities incur significant costs, and if appropriately managed, they contribute to optimal ROE. Conversely, excessive social activities may disrupt a company's ROE. The Kompas100-indexed companies have successfully balanced aspect S, showcasing positive influences on ROE, such as maintaining product quality and ensuring consumer safety.

Aspect G affects ROE, proven with the P-values of 0.002 (< 0.01). This finding is consistent with prior study highlighting the crucial role of aspect G in improving a company's financial performance. A

robust aspect G enhances investor confidence and addresses information asymmetry issues, in line with agency theory. Kompas100-indexed companies have comprehensively implemented aspect G, ensuring adequate supervision in processes, transparency in performance information, and safeguarding shareholder rights. This enhances the overall financial performance effectiveness, resulting in an increase in the company's ROE.

Aspect E has no impact on the DER with the P-values of 0.580 (> 0.01). This finding aligns with previous study conclusions indicating that aspect E does not influence the financing proportion of a company. Although aspect E is essential in operational activities, it often fails to depict the risks and conditions of a company that drive investment decisions. The sampled companies in this study still exhibit diverse E scores, suggesting a dynamic environmental situation where E is not the sole basis for investors when making investment decisions. Moreover, the limited circulation and issuance of green bonds in Indonesia contribute to the fact that the implementation of aspect E by business entities does not significantly affect their financing structures. Kompas100-indexed companies adequately budget all E-related activities but do not use them as a basis for indebtedness.

Indicating that aspect S affects DER, is proven to have no impact with the p-values of 0.236 (> 0.01). This finding is consistent with previous study, concluding that aspect S does not serve as a consideration for company financing decisions. The emphasis on aspect S activities is directed towards broader stakeholder interests such as the community and employees, leading companies to prioritize maintaining their presence in society rather than structuring their financing around S-related activities. Kompas100-indexed companies systematically implement various social activities, utilizing indebtedness for funding other internal company initiatives. Debt usage is predominantly directed towards investment and expansion purposes, which significantly contribute to the company.

Lastly, this study is suggesting that aspect G has no impact on DER with p-values of 0.067 (> 0.01). Consistent with prior study, good governance practices enhance process effectiveness within a company but do not alter the debt proportion in financing decisions due to influences from various other factors. Governance components collaborate to achieve corporate goals by structuring financing based on factors such as company size, liquidity levels, profitability, and company age, among other elements. Governance components within Kompas100-indexed companies do not specifically emphasize the source of their funding, hence not influencing DER, as their primary goal is to optimize overall company performance.

The study utilizes the aggregate scores of ESG indicators to assess the most influential indicators within aspects E, S, and G. In accordance with Table 9, all three aspects, E, S, and G, only demonstrate an

impact on ROE. Consequently, this study retests the determination coefficients of E, S, and G concerning ROE and generates the structural model diagram as follows.
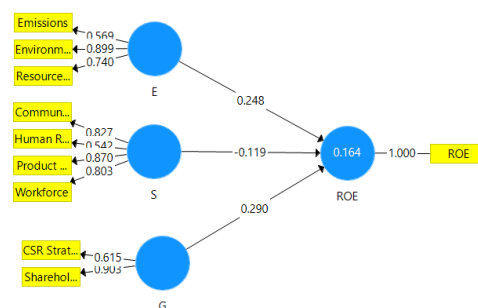

Figure 4. ESG's Indicators Analysis

The component that most influences aspect E is the environmental innovation indicator with a score of 0.899, surpassing the emissions (0.569) and resource (0.740) indicators. This indicator comprises various assessments, including the company's environmentally friendly products, company certifications, responsible use of raw materials, and various efforts by the company to develop environmentally friendly products. This indicates that Kompas100-indexed companies consistently strive for environmentally friendly products, ultimately realizing good financial performance (ROE).

For aspect S, the most influential indicator is product responsibility (0.870), followed by the community (0.827), workforce (0.803), and human resource (0.542) indicators. The product responsibility indicator includes assessments such as compliance with ISO 9000, consumer satisfaction, safe raw materials for consumers, and the health aspect of the products produced. Leading companies in the capital market indexed by Kompas100 have ensured that their products are safe for consumers, holding various certifications that attest to the responsibility for product quality, thus contributing to an increase in ROE.

The most influential indicators for aspect G are shareholders (0.903), followed by the CSR Strategy indicator (0.615). The shareholders' indicator assesses the transparency of the company, managing the rights of shareholders, and various efforts to prioritize the interests of its shareholders. Kompas100-indexed companies, serving as the study sample, already have a governance system that prioritizes stakeholder interests, particularly shareholders, contributing to the generation of good ROE within the company.

4. Conclusion

The results of the study indicate that individually, the E, S, and G scores of companies indexed in Kompas100 have an impact on their respective Return on Equity (ROE). This finding has the potential to enhance awareness among other companies in Indonesia regarding the management and implementation of ESG aspects to bolster their

competitiveness for investors. Specifically, companies could improve their focus on indicators such as environmental innovation, product responsibility, and shareholders. The study reveals that aspects E, S, and G in companies do not influence the Debt-to-Equity Ratio (DER). This is attributed to the fact that financing decisions in companies are comprehensive choices that consider other factors such as company age, size, liquidity level, and profitability. Companies indexed in Kompas100 prefer using debt as a source of funding for expansion and other investment activities. Further study could be conducted to analyze the impact of ESG on performance, specifically associating it with specific businesses' sectors to yield more specific conclusions. Additionally, further investigation is needed to assess the influence of ESG on other performance indicators, such as market performance, using alternative financial performance variables like Return on Assets (ROA), and incorporating other capital structure variables like the cost of equity.

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