

## The Influence of Good Corporate Governance and Environmental Management Systems on ESG Risk Ratings: An Empirical Study of LQ45 Companies in Indonesia

Astria Putri Santosa, Dwi Jayanti

Department of Accounting, Faculty of Economic and Business, Universitas Jenderal Achmad Yani

astriaputri\_21p079@ak.unjani.ac.id, dwijayanti@ak.unjani.ac.id

### ABSTRACT

*This study critically examines the influence of Good Corporate Governance (GCG) and Environmental Management Systems (EMS) on Environmental, Social, and Governance (ESG) Risk Rating in LQ45 companies listed on the Indonesia Stock Exchange during the 2021–2024 period. Elevated ESG Risk Ratings in several firms highlight ongoing challenges in managing sustainability-related risks, suggesting the need for more effective governance and environmental strategies. Using purposive sampling, a total of 9 companies were selected, yielding 36 observations. Data analysis was conducted through multiple linear regression using IBM SPSS Statistics 27. The findings indicate that GCG has a significant negative effect on ESG Risk Rating, implying that stronger governance practices contribute to lower ESG risk exposure. In contrast, EMS shows no significant effect. Nonetheless, both variables, when assessed simultaneously, exhibit a significant joint influence on ESG Risk Rating, underscoring their combined relevance in shaping corporate sustainability risk profiles.*

**Keywords:** GCG; EMS; ESG Risk Rating; LQ45; Sustainability

### ABSTRAK

Studi ini secara kritis meneliti pengaruh *Good Corporate Governance* (GCG) dan *Environmental Management System* (EMS) terhadap Peringkat Risiko Lingkungan, Sosial, dan Tata Kelola (ESG) pada perusahaan LQ45 yang terdaftar di Bursa Efek Indonesia selama periode 2021–2024. Peringkat Risiko ESG yang meningkat di beberapa perusahaan menyoroti tantangan berkelanjutan dalam mengelola risiko terkait keberlanjutan, menunjukkan perlunya tata kelola dan strategi lingkungan yang lebih efektif. Dengan menggunakan *purposive sampling*, total 9 perusahaan dipilih, menghasilkan 36 pengamatan. Analisis data dilakukan melalui regresi linier berganda menggunakan IBM SPSS Statistics 27. Temuan ini menunjukkan bahwa GCG memiliki efek negatif yang signifikan pada Peringkat Risiko ESG, menyiratkan bahwa praktik tata kelola yang lebih kuat berkontribusi pada paparan risiko ESG yang lebih rendah. Sebaliknya, EMS tidak menunjukkan efek yang signifikan. Meskipun demikian, kedua variabel, ketika dinilai secara bersamaan, menunjukkan pengaruh bersama yang signifikan pada Peringkat Risiko ESG, menggarisbawahi relevansi gabungan mereka dalam membentuk profil risiko keberlanjutan perusahaan.

**Kata kunci:** GCG; EMS; Peringkat Risiko ESG; LQ45; Keberlanjutan

## INTRODUCTION

Amid the increasingly dynamic and globally integrated business environment, the implementation of Good Corporate Governance (GCG) principles has become essential in ensuring transparency, accountability, and long-term corporate sustainability. It strengthens organizational resilience and competitiveness, while simultaneously creating value for a broad range of stakeholders, including management, employees, investors, regulators, and the wider community (Novitasari & Bernawati, 2020). As part of regional governance initiatives, the ASEAN Corporate Governance Scorecard (ACGS), grounded in OECD principles, offers a standardized benchmark that incorporates ESG dimensions to strengthen sustainable practices and reinforce investor confidence (Putra & Adam et al., 2024)

In parallel, Environmental Management Systems (EMS) enable companies to comprehensively address environmental challenges by integrating sustainable practices across operations as standardized by International Standard Organization (ISO 14001 which is structured using “High-Level Structure” for consistency and alignment (Candra & Purwaningrum et al., 2021). According to Bonacorsi et al., (2022), effective EMS implementation can significantly reduce ESG risk ratings by mitigating key environmental risks and promoting operational sustainability.

The rising emphasis of sustainability and climate-related issue has driven the embedding of Environmental, Social and Governance (ESG) related priorities within the core strategies and long term objective and operations companies (Romli & Abdurahim, 2024). The evaluation of ESG performance has emerged as evaluating non-financial risks and opportunities, enabling investors and stakeholders to assess corporate behavior beyond traditional financial metrics (Amalia & Kusuma et al, 2023). In response to this shift, ESG risk ratings and related performance data have become more widely available, serving as important tools for decision making in the capital market.

Assessing Environmental, Social, and Governance (ESG) performance through risk evaluation provides an effective method for identifying both the potential impacts and risks linked to sustainable business operations (Kustinah, 2022). The ESG Risk Assessment evaluates a company’s exposure to material ESG risks that are specific to its industry, as well as the effectiveness of the company’s risk management strategies (Jayanti et al., 2024). The risk levels fall into five broad categories, detailed as follows: negligible, low, moderate, high, and severe. The ESG Risk Score reflects not only the extent of a company’s exposure to these risks but also its capacity to mitigate and manage them appropriately.

**Table 1. ESG Risk Rating Trends and Overall Average for LQ45 Companies**

Source: Sustainalytics, 2025

	Environmental, Social and Governance (ESG) Risk Rating			
	2021	2022	2023	2024
Average	34,56	30,35	32,29	29,49
Overall Average	31,67			

The Environmental, Social, and Governance (ESG) Risk Rating of LQ45 companies from 2021 to 2024 reflects a gradual improvement, yet the overall average of 31.67 still places these firms in the high-risk category. This indicates that, despite increasing attention to ESG practices, many companies remain significantly exposed to environmental, social, and governance vulnerabilities. A risk rating at this level suggests limited progress in mitigation strategies, insufficient transparency, and suboptimal governance structures. These findings emphasize the urgency of strengthening sustainability frameworks, particularly through the effective implementation of Good Corporate Governance and Environmental Management Systems, to improve ESG risk management in Indonesia’s capital market.

As the leading benchmark index of the Indonesian capital market, the LQ45 represents a group of companies with high market capitalization, strong liquidity, and robust financial performance, making it a relevant proxy for assessing corporate sustainability risks (Zainuddin, 2024). Nevertheless, these firms’ prominent market positions, the persistence of high ESG risk ratings suggests that superior financial performance does not automatically translate into effective management of environmental, social, and governance issues. This disconnect highlights the importance of examining the role of Good Corporate Governance and Environmental Management Systems in mitigating ESG-related vulnerabilities within these top-tier firms. Furthermore, the LQ45 index is often used by investors with long-term perspectives, making sustainability performance a critical factor in influencing investment decisions, firm value, and overall market confidence (Winy & Yulfiswandi, 2022).

A survey conducted by the Indonesia Business Council for Sustainable Development in 2021 positioned Indonesia at thirty-sixth out of forty-seven countries in terms of ESG performance within capital markets. This finding highlights a significant gap between global ESG risk mitigation efforts and domestic practices. These shortcomings may be attributed to several factors, including limited institutional capacity, insufficient technical expertise, and the absence of strong regulatory enforcement or government incentives (Gabriela et al., 2024). Moreover, many companies still treat ESG compliance as a formal obligation rather than a strategic priority resulting in ESG risk ratings, used to assess a firm’s exposure to environmental, social, and governance-related risks, tend to remain elevated, reflecting limited mitigation efforts, low transparency, and poor handling of sustainability issue (Wulandari et al., 2024; Clément, 2022; Fachrezi, 2024).

This study introduces a new perspective by simultaneously analyzing the role of Good Corporate Governance and Environmental Management Systems in influencing ESG risk ratings. Prior research often investigates these variables separately or focuses solely on disclosure levels rather than actual risk exposure (Putri & Kusmayadi, 2025; Mokhtar et, 2024). By using ESG risk ratings as the outcome variable, this research addresses not only transparency but also real corporate vulnerabilities in ESG management. Additionally, by focusing on the LQ45 index from 2021 to 2024, this study captures the post-pandemic sustainability landscape in Indonesia and contributes to the literature by revealing how governance mechanisms interact with environmental strategies to mitigate ESG risks among market-leading firms.

Prior studies examining the relationship between Good Corporate Governance (GCG) and ESG risk ratings have yielded inconsistent results. Fuad et al., 2024 and Ni & Kusumaningtias et al., 2025 found that companies with strong GCG structures tend to exhibit lower ESG risk ratings, suggesting a positive influence. In contrast, research by Husna, 2023 and Qurniasih, (2025) indicated that GCG scores do not have a significant effect on ESG risk outcomes. Supporting this ambiguity, Solem & Islek, 2022 argue that the connection between governance characteristics and ESG risk ratings remains insufficiently explored, highlighting a gap in the current literature. A comparable lack of consensus is evident in studies related to Environmental Management Systems (EMS). While Minggu, (2023) and Siahaan & Hamzah et al., (2025) reported a positive association to ESG risk ratings, Imansari, (2024) found no significant impact.

Therefore, this study endeavors to contribute by identified empirical gap by examining both the individual and joint effects of Good Corporate Governance and Environmental Management Systems on ESG risk ratings, using a sample of LQ45 companies listed on the Indonesia Stock Exchange from 2021 to 2024. This approach is expected to offer deeper insights into how internal governance mechanisms shape corporate sustainability risk profiles in the Indonesian capital market context.

## **LITERATURE REVIEW**

### **Legitimacy Theory**

Legitimacy Theory serves as a fundamental framework for explaining corporate governance and environmental disclosure practices. Dowling and Pfeffer (1975) argue that companies operate within societal norms and expectations, and weak environmental performance can jeopardize their social legitimacy. To maintain this legitimacy, companies disclose social and environmental information as part of their 'social contract' with the community, aiming to secure public trust and stakeholder support (Wibowo & Linggarsari, 2024; Artameviah, 2022). In the context of Good Corporate Governance (GCG) and Environmental Management Systems (EMS), legitimacy is preserved through transparent decision-making, regulatory compliance, and environmental accountability. Similarly, ESG Risk Ratings act as

external assessments reflecting how effectively companies manage social and environmental risks to meet legitimacy demands from investors and the public (Breliastiti, 2025; IFG Progress, 2024). This methodological framework serves as anticipated to provide a more comprehensive understanding of how internal governance structures influence corporate sustainability risk management, particularly in leading publicly listed companies.

### **Good Corporate Governance**

Good Corporate Governance (GCG) refers to a set of rules, practices, and processes used to direct and manage a company with the aim of enhancing transparency, accountability, and fairness in corporate operations (Pramanaswari et al., 2024). In addition to improving corporate governance structures, GCG serves as a strategic foundation for integrating business sustainability and corporate social responsibility by incorporating social and environmental considerations into decision-making processes. In the Indonesian context, Good Corporate Governance is commonly measured using the ASEAN Corporate Governance Scorecard (ACGS), with scores disclosed in annual reports and widely used in empirical research as a proxy for governance quality (Ramli & Setiany, 2021). The application of GCG is guided by five core principles, known as TARIF: transparency, accountability, responsibility, independency, and fairness. These aforementioned principles to ensure open information disclosure, structured managerial accountability, regulatory compliance, avoidance of conflicts of interest, and equitable treatment of all stakeholders (Islamiah, 2020).

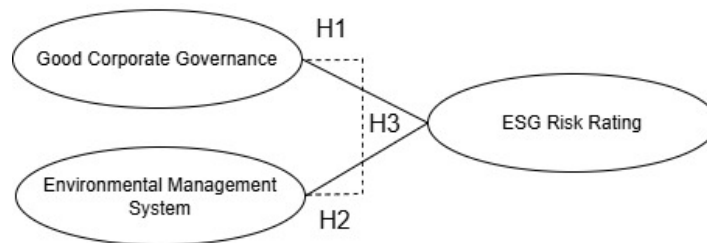
### **Environmental Management System**

Environmental Management Systems (EMS) represent a structured approach that provide a structured and methodical framework that enables organizations to recognize, monitor, and effectively mitigate the environmental consequences arising through structured policies, procedures, and continuous improvement holistically (Kementerian Lingkungan Hidup dan Kehutanan, 2016). In line with this framework, EMS involves systematic procedures for managing environmental impacts and is commonly implemented through ISO 14001 standards, which integrate environmental considerations into business operations while supporting broader sustainable development goals (Septanti, 2024). EMS also encourages organizations to conduct regular environmental audits and stakeholder engagement processes to monitor compliance and improve environmental performance over time, through this system, companies can align their operational strategies with global environmental standards, fostering accountability and long-term ecological responsibility (Waxin et al., 2023).

### **Environment, Social and Governance (ESG) Risk Rating**

Environmental, Social, and Governance (ESG) Risk Rating serves as a critical metric for evaluating a company's potential exposure to non-financial risks that may adversely affect its financial performance. Specifically, this rating reflects the

intensity with which a firm is vulnerable to ESG-related issues, encompassing governance practices, environmental management, and social responsibility. In this context, ESG Risk Rating operates on a scale ranging from low to high, where a lower score indicates better risk management and minimal ESG vulnerabilities, while a higher score suggests substantial risks and poor ESG mitigation efforts. Furthermore, the ESG Risk Rating provides a standardized methodology to assess how effectively a company identifies, manages, and discloses risks and opportunities related to environmental, social, and governance factors (Sustainalytics, 2021). This tool is increasingly important as it assists investors, regulators, and stakeholders in making socially responsible investment decisions by offering a clearer picture of a firm's sustainability risk profile (Ang, 2023). However, existing studies report mixed findings regarding the relationship between corporate governance, environmental management, and ESG risk outcomes, signaling the need for further research in emerging markets (Fuad et al, 2024; Minggu, 2023).



**Figure 1. Model Framework**

### **Good Corporate Governance and Environment, Social and Governance (ESG) Risk Rating**

Good Corporate Governance (GCG) plays a crucial role in mitigating sustainability-related risks, including those associated with environmental, social, and governance (ESG) dimensions. By adhering to principles, GCG strengthens internal controls and fosters ethical corporate behavior (Moffitt, 2023). Firms that implement strong and well-defined governance frameworks tend to implement sustainability initiatives, such as environmental management and social responsibility programs, which contribute to reducing their ESG risk exposure (Di, 2024; Fiandro, 2025). Furthermore, GCG facilitates the establishment of specialized committees tasked with supervising ESG strategies, ensuring that sustainability risks are actively monitored and addressed. In this context, stronger governance practices are expected to improve corporate transparency and reduce ESG vulnerabilities, leading to lower ESG Risk Ratings (Safitri, 2025).

H1: Good Corporate Governance has a negative influence on Environmental, Social, and Governance (ESG) Risk Rating.

### **Environmental Management System and Environment, Social and Governance (ESG) Risk Rating**

The implementation of an Environmental Management System (EMS), particularly through ISO 14001 certification, is expected to reduce a firm's environmental risks, which are a core component of ESG risk exposure is expected to reduce a firm's ESG risk exposure by systematically managing environmental impacts such as pollution control, resource efficiency, and regulatory compliance (Halim & Widodo, 2022). From a risk management perspective, EMS supports corporate sustainability by strengthening environmental governance and aligning operational practices with global environmental standards (Bao & Sadiq, 2024). Empirical findings generally support this relationship, indicating that companies adopting EMS tend to report lower ESG risk ratings (Silva, 2024; Kong, 2024), although industry-specific factors may affect the consistency of this outcome.

H2: Environmental Management System has a negative influence on Environmental, Social, and Governance (ESG) Risk Rating.

### **Good Corporate Governance, Environmental Management System and Environment, Social and Governance (ESG) Risk Rating**

The interaction between Good Corporate Governance (GCG), Environmental Management Systems (EMS), and Environmental, Social, and Governance (ESG) Risk Rating is a critical element in promoting corporate sustainability and long-term value creation. Effective implementation of GCG ensures transparency, accountability, and ethical decision-making, whereas EMS offers a systematic and organized approach to identifying, controlling, and mitigating a company's environmental footprint in alignment with global sustainability standards. When these two internal mechanisms are integrated, companies can strengthen their resilience against ESG-related risks, enhance stakeholder trust, and foster sustainable business practices (Ngo & Le, 2022). This synergy supports the achievement of lower ESG risk ratings by minimizing environmental, social, and governance vulnerabilities, thereby reinforcing corporate reputation and maintaining investor confidence in increasingly sustainability-conscious markets (Maroun et al., 2022)

H3: Good Corporate Governance and Environmental Management System jointly influence on Environmental, Social, and Governance (ESG) Risk Rating.

## **RESEARCH METHODS**

This study employs a quantitative research approach aimed at examining the influence of Good Corporate Governance (GCG) and Environmental Management Systems (EMS) on ESG Risk Ratings in companies listed in the LQ45 index of the Indonesia Stock Exchange (IDX) during the period 2021 to 2024. The population in this study consists of all companies included in totaling 45 companies using sampling technique uses non-probability sampling with a purposive sampling method, where samples are selected based on specific criteria relevant to the research objectives, 9

companies were selected with a four-year observation window, this resulted in a total of 36 firm-year observations.

The research involves three research variables. The independent variables consist of Good Corporate Governance (GCG), treated as a ratio-scale variable, measured using the ASEAN Corporate Governance Scorecard (ACGS) scores as disclosed in companies' annual reports and Environmental Management Systems (EMS) is a nominal-scale variable, represented by a dummy variable, where companies certified with ISO 14001 are assigned a value of 1, and those without certification are assigned 0. The dependent variable is the Environmental, Social, and Governance (ESG) Risk Rating is measured on a ratio scale and sourced from Sustainalytics. To test the research hypotheses, this study applies a parametric statistical method using multiple regression analysis, as there are two independent variables being examined simultaneously. In conducting the regression analysis, the study also performs classical assumption tests to ensure the validity of the model, including normality, multicollinearity, heteroscedasticity, and autocorrelation tests.

## **RESULTS AND DISCUSSION**

### **Descriptive Statistical Analysis**

This analysis includes the calculation of the mean, minimum, maximum, and standard deviation values for each variable, namely Environmental, Social, and Governance (ESG) Risk Rating (Y), Good Corporate Governance (X1), Environmental Management System (X2). Based on the descriptive statistical test results, this study uses a total of 36 observations. The ESG Risk Rating has a mean of 31.672, with values ranging from 13.51 to 62.02 and a standard deviation of 9.629. This indicates varied ESG risk exposure among LQ45 companies, suggesting differences in their sustainability performance. A higher rating reflects weaker ESG practices, signaling that not all firms effectively manage ESG related risks. The GCG variable, measured using ACGS scores as a ratio, shows a mean of 0.933, with a standard deviation of 0.114 indicating moderate variation in governance quality. Meanwhile, the EMS variable, measured as a nominal dummy based on ISO 14001 certification, has a mean of 0.81 and a standard deviation of 0.401. This implies that while most companies are certified, several are not, potentially contributing to differences in ESG risk levels across the sample.

### **Classic Assumption Test**

#### **Normality Test of Data**

Fundamental assumption in classical linear regression to ensure valid statistical inference by given the sample size ( $N = 36$ ), the Shapiro-Wilk test was applied due to its reliability for small to medium samples. The results of the normality test are presented as follows:

**Table 2. Data Normality Test Results**

Source: Output IBM SPSS 27 (processed data)

Shapiro-Wilk Test	
	Unstandardized Residual
N	36
Test Statistic	0.918
Asymp. Sig. (p-value) <sup>c</sup>	0.439 <sup>d</sup>

As presented in Table 2, the test produced a significance value (Asymp. Sig.) of 0.439, which is greater than the 0.05 threshold. This indicates no significant deviation from normality, suggesting that the residuals are normally distributed. Consequently, the regression estimates are unlikely to be biased due to non-normal residuals, and the application of parametric statistical methods remains appropriate.

**Multicollinearity Test**

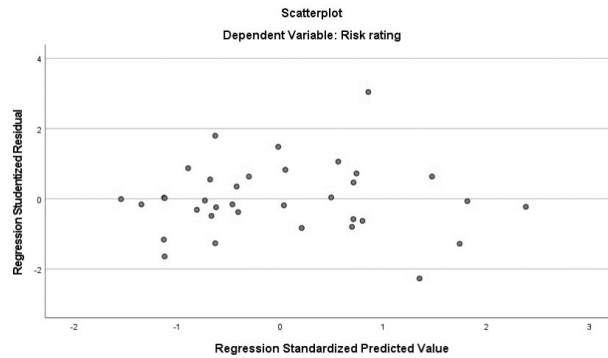
**Table 3. Multicollinearity Test Results**

Source: Output IBM SPSS 27 (processed data)

Coefficients <sup>a</sup>		
Model	Collinearity Statistics	
	Tolerance	VIF
Good Corporate Governance	.492	2.272
Environmental Management System	.563	1.776
Dependent Variable: Environmental, Social, and Governance (ESG) Risk Rating		

Table 3 shows that the tolerance value for Good Corporate Governance (GCG) is 0.492 with a VIF of 2.272, while the Environmental Management System (EMS) has a tolerance value of 0.563 and a VIF of 1.776. Since all tolerance values exceed 0.10 and all VIF values remain well below the critical threshold of 10, it may reasonably be concluded that there is no observable sign of multicollinearity in this model. This suggests that GCG and EMS provide unique explanatory power for ESG Risk Rating, supporting their inclusion as separate constructs. Moreover, the moderate VIF value for GCG (2.272) indicates a modest correlation with EMS, which is theoretically acceptable given that both are part of broader sustainability governance efforts but operate through different mechanisms.

### Heteroscedasticity Test



**Figure 2. Heteroscedasticity Test Results**

Source: Output IBM SPSS 27 (processed data)

As seen in Figure 2, the residual points appear randomly distributed above and below the Y-axis zero line, with no discernible pattern such as funneling, waves, or clustering. This suggests to demonstrating that the homoscedasticity assumption is satisfied in the model. The absence of heteroscedasticity indicates that the variance of the error terms is stable across levels of the independent variables, thereby strengthening the reliability of the model’s estimates. It also implies that the influence of GCG and EMS on ESG Risk Rating is consistent across the sample, supporting the robustness of the analytical results.

### Autocorrelation Test

The Durbin-Watson (DW) test was conducted to determine whether the residuals from the regression model are autocorrelated, which would violate the assumption of independence. The test results are shown below.

**Table 4. Autocorrelation Test Results**

Source: Output IBM SPSS 27 (processed data)

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.423 <sup>a</sup>	.179	.129	.374606	1.524
Predictors: (Constant), <i>Good Corporate Governance</i> , Environmental Management System					
Dependent Variable: <i>Environment, Social and Governance (ESG) Risk Rating</i>					

Based on the test results shown in Table 4, the obtained Durbin-Watson value is 1.524. Referring to the Durbin-Watson statistical criteria with  $n = 36$ , the decision rule is  $dU < d < 4 - dU$ . Assuming the  $dU$  value is approximately 1.5060 and  $4 - dU$  is 2.4940, the test result of 1.524 falls within this range ( $1.5060 < 1.524 < 2.4940$ ). Therefore, the findings demonstrate that the assumption of no autocorrelation holds, ensuring the reliability of standard error estimates and hypothesis testing. The

absence of autocorrelation implies that the residuals are independent over time, suggesting that the model's estimates are not biased due to sequential dependency. It ensures the temporal stability of the relationship between Good Corporate Governance, Environmental Management Systems, and ESG Risk Rating, thereby enhancing the credibility of the regression outcomes.

### Coefficient of Determination

This section aims to evaluate the extent to which the of the independent variables, namely Good Corporate Governance and Environmental Management System, explain the variation in the dependent variable, which is the Environmental, Social, and Governance (ESG) Risk Rating. The results are presented below:

**Table 5. Results of Coefficient of Determination**

Source: Output IBM SPSS 27 (processed data)

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.423 <sup>a</sup>	.179	.129	.374606

Based on Table 5, the results of the coefficient of determination test show that the R Square value is 0.179. This indicates that 17.9% of the variation in the Environmental, Social, and Governance (ESG) Risk Rating reflects the contribution of the independent variables, namely Good Corporate Governance (GCG) and Environmental Management System (EMS). The remaining 82.1% is influenced by other factors not included in this study's model. Although the explanatory power of the model is relatively medium, this finding is not uncommon in social science research, particularly in studies involving ESG related outcomes, which are inherently influenced by a multitude of qualitative and contextual factors. For instance, external pressures such as stakeholder activism, environmental regulations, or corporate reputation may play a more significant role in shaping ESG risk assessments. Moreover, the nature of ESG ratings often derived from third-party perceptions may incorporate broader dimensions beyond internal governance and certification practices. This result underscores the complexity of ESG performance drivers in Indonesian LQ45 companies and highlights the need for future research to incorporate additional variables.

### Partial Hypothesis Testing

To proceeds perform partial hypothesis testing through the t-test by calculated t-statistic with the critical value from the t-distribution table at a 5% significance level. The results of partial testing (t-test) are as follows:

**Table 6. Partial Hypothesis Test Results**

Source: *Output IBM SPSS 27 (processed data)*

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	62.803	15.190		4.739	.000
	<i>Good Corporate Governance</i>	-34.157	14.390	-.407	-2.374	.024
	Sistem Manajemen Lingkungan	1.927	4.111	.080	.469	.642

a. Dependent Variable: *ESG Risk Rating*

Referring to Table 6, the regression equation derived from the analysis is as follows:

$$Y = 62.015 - 34.157X_1 + 1.927 X_2 + e$$

The constant value of 62.015 indicates that if both Good Corporate Governance (X1) and Environmental Management System (X2) are assumed to be zero, the ESG Risk Rating (Y) will have a baseline value of 62.015. The regression coefficient for Good Corporate Governance (X1) is -34.157, meaning that if the Environmental Management System remains constant and Good Corporate Governance increases by one unit, the ESG Risk Rating will decrease by 34.157 points. This reflects that stronger governance practices are associated with a reduction in ESG risk. Meanwhile, the regression coefficient for the Environmental Management System (X2) is 1.927, implying that if Good Corporate Governance remains unchanged and the Environmental Management System increases by one unit, the ESG Risk Rating will increase by 1.927 points.

The t-test was performed to assess the partial effect of each independent variable on the ESG Risk Rating using a significance level of 0.05 and a sample size of 36 observations. Based on the coefficient table, the Good Corporate Governance (GCG) variable has a significance value of 0.024, which is below 0.05. This result indicates that GCG significantly influences the ESG Risk Rating, so H1 is accepted. On the other hand, the Environmental Management System (EMS) shows a significance value of 0.642, which is higher than 0.05. This means that EMS does not have a significant partial effect on the ESG Risk Rating, leading to the rejection of H2. Therefore, in this model, only GCG has a statistically significant relationship with ESG Risk Rating, while EMS does not exhibit a significant impact.

The findings indicate that Good Corporate Governance (GCG) has a stronger influence on ESG Risk Rating in LQ45 companies, likely due to greater investor and regulatory focus on governance quality. Effective governance enhances transparency and stakeholder trust, reducing ESG risks. Meanwhile, the insignificance of the Environmental Management System (EMS) suggests it may be applied more as a

formality than as a strategic tool, revealing a gap between environmental certification and real ESG impact in the Indonesian context.

**Simultaneous Hypothesis Testing**

In this study, the F-test uses the formula  $F(k, n-k-1)$ , where  $k = 2$  represents the number of independent variables (Good Corporate Governance and Environmental Management System), and  $n = 36$  denotes the complete data collected. Thus, the degrees of freedom for the F-test are  $F = 2, 85$ . The results are as follows:

**Table 7. Simultaneous Hypothesis Results**

Source: *Output IBM SPSS 27 (processed data)*

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	646.123	2	323.062	4.101	.026 <sup>b</sup>
	Residual	2599.596	33	78.776		
	Total	3245.719	35			

Based on the results presented in Table 7, the significance value of the regression model is 0.026, which is less than the predetermined significance level of 0.05 ( $0.026 < 0.05$ ). Additionally, the calculated F-value is 4.101, while the F-table value at degrees of freedom  $F = 2.85$ . Since the calculated F-value is greater than the F-table value ( $4.101 > 2.85$ ), the findings suggest that H3 is accepted. This indicates that Good Corporate Governance and Environmental Management System (EMS) jointly have a significant effect on the Environmental, Social, and Governance (ESG) Risk Rating in LQ45 companies observed in this study. Although EMS was not significant on its own, its combined influence with GCG may enhance the overall ESG risk profile, suggesting that environmental practices can still contribute to governance quality or reflect corporate commitment when considered alongside other factors. This highlights the importance of integrated ESG strategies rather than siloed efforts.

**The Influence of Good Corporate Governance on Environment, Social and Governance (ESG) Risk Rating**

The test results indicate that Good Corporate Governance (GCG) has a significant negative effect on Environmental, Social, and Governance (ESG) Risk Rating. This is reflected by the regression coefficient value of -34.157, and the calculated t-value of -2.374, which is smaller than the  $t_{table}$  value of 2.0345. Since the significance level is  $0.024 < 0.05$ , the result implies that  $H_0$  is rejected and  $H_1$  is accepted. Therefore, it can be stated that Good Corporate Governance significantly reduces ESG Risk Rating. These findings contrast with Lawrence & Wafa (2024), who found a positive association between governance and ESG Risk Rating, rather than risk reduction. However, the conclusions drawn from the study’s results emphasize that in the Indonesian context, robust governance practices are linked to lower ESG

risk exposure, indicating stronger management of sustainability-related vulnerabilities. Furthermore, the findings complement Rahmadani, (2023), who reported no significant relationship, suggesting that the governance ESG nexus remains complex and context-dependent.

These results imply that, within the Indonesian context, particularly among LQ45 companies, investors and ESG rating agencies may assign greater importance to elements such as governance transparency, board independence, and accountability mechanisms. The presence of strong corporate governance is likely to enhance risk oversight, reduce information asymmetry, and strengthen stakeholder confidence, ultimately lowering perceived ESG related vulnerabilities. Accordingly, Good Corporate Governance should not be viewed solely as a compliance obligation but rather as a strategic instrument for managing sustainability risks and improving overall corporate resilience.

### **The Influence of Environmental Management System on Environment, Social and Governance (ESG) Risk Rating**

The analysis results show that the Environmental Management System (EMS) has no significant effect on Environmental, Social, and Governance (ESG) Risk Rating. This is reflected by the regression coefficient value of 1.927 and a calculated  $t_{\text{value}}$  of 0.469, which is smaller than the  $t_{\text{table}}$  value of 2.0345. Since the significance level is 0.642, which is greater than 0.05, the result indicates that  $H_0$  is accepted and  $H_2$  is rejected. These findings underscore the importance of integrating environmental management efforts more deeply into corporate sustainability strategies to produce measurable ESG improvements.

The insignificant relationship indicate that EMS practices have not been fully integrated into the companies' strategic operations or risk management frameworks. In many cases, EMS may still be implemented merely to fulfill regulatory or certification requirements, rather than as a core component of environmental performance. This limited integration likely reduces its effectiveness in contributing to ESG risk mitigation. Therefore, it is essential for companies to embed environmental management more deeply into corporate sustainability strategies to generate measurable ESG outcomes. Conversely, research by Ronalter et al., (2023) found a significant positive relationship between EMS implementation and the reduction of ESG risks. The outcomes observed in this study correspond to the study by Imansari et al. (2024), which found that environmental certification does not always reflect better ESG Risk Rating if not accompanied by substantive implementation.

### **The Influence Good Corporate Governance and Environmental Management System on Environment, Social and Governance (ESG) Risk Rating**

The analysis results indicate that Good Corporate Governance (GCG) and Environmental Management Systems (EMS) have a significant influence on the Environmental, Social, and Governance (ESG) Risk Rating. This is demonstrated by the F-test value of 4.101, which is greater than the F-table value of 3.28 ( $F_{\text{count}} > F_{\text{table}}$ ),

and a significance value of 0.026, which is smaller than the predetermined significance level of 0.05. Based on these findings, the null hypothesis ( $H_0$ ) is rejected and the alternative hypothesis ( $H_a$ ) is accepted. In other words, when tested simultaneously, Good Corporate Governance and Environmental Management Systems are proven to have a significant effect on ESG Risk Rating. This implies that both variables jointly hold substantial influence over corporate ESG risk exposure.

These findings suggest that the combined enforcement of governance practices and environmental management contributes meaningfully to how companies are assessed in terms of ESG risks. Although EMS alone may not show a significant individual effect, its joint presence with GCG appears to reinforce a company's overall sustainability posture. This may be attributed to the complementary roles both variables play where GCG provides the structural framework for oversight and accountability, while EMS offers operational pathways to address environmental concerns. Such synergy aligns with the growing expectations of investors and ESG evaluators that sustainability risks be managed holistically through both strong governance and effective environmental practices. However, the dominant influence of GCG in the individual tests also indicates a potential imbalance in how these components are embedded within corporate strategy, with EMS possibly underutilized or regarded merely as a compliance mechanism rather than a strategic tool.

These research such findings reinforce the arguments undertaken by Rahmadani et al., (2023) and Imansari et al. (2024) which found that Good Corporate Governance has a negative influence on Environmental, Social, and Governance (ESG) Risk Rating, while Environmental Management Systems do not have a significant effect on ESG Risk Rating.

## CONCLUSIONS AND SUGGESTIONS

The findings indicate that Good Corporate Governance (GCG) significantly contributes to lowering ESG Risk Rating among LQ45 companies, whereas the Environmental Management System (EMS) does not exhibit a significant effect. This provides evidence that governance mechanisms play a more dominant role in managing ESG risks compared to EMS, which may remain administrative in nature. These results highlight the strategic importance of strengthening GCG practices. Future research is encouraged to explore broader factors or use alternative proxies to deepen the understanding of ESG risk management practices, while companies should ensure that environmental certifications are supported by substantive implementation, not merely formal compliance.

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