IJAMESC, Vol. 3 No. 5, October 2025
DOI: https://doi.org/10.61990/ijamesc.v3i5.595 e-ISSN 2986-8645

THE EFFECT OF CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE AND SYSTEMATIC RISK ON EARNINGS RESPONSE COEFFICIENT WITH GOOD CORPORATE GOVERNANCE AS A MODERATION VARIABLE

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Abstract
This study examines the effect of Corporate Social Responsibility (CSR) Disclosure and Systematic Risk on the Earnings Response Coefficient (ERC), with Good Corporate Governance (GCG) as a moderating variable. Using panel data regression with the Random Effect Model (REM), the study analyzed 125 firm-year observations from energy sector companies listed on the Indonesia Stock Exchange (IDX) between 2019 and 2023. The findings reveal that CSR Disclosure has a significant positive effect on ERC, supporting the signaling theory that CSR acts as a credible indicator of firm quality and long-term sustainability. In contrast, Systematic Risk does not significantly influence ERC, suggesting that market-wide risk factors are not primary determinants of investor responsiveness to earnings announcements in the energy sector. Furthermore, GCG significantly moderates the relationship between CSR Disclosure and ERC, reinforcing the credibility of CSR disclosures and enhancing investor confidence. However, GCG does not moderate the relationship between Systematic Risk and ERC, indicating that corporate governance may not effectively mitigate the impact of external market uncertainties on earnings reactions. This study contributes to the existing literature by offering empirical insights from an emerging market context and highlighting the importance of governance and sustainability disclosures in enhancing the informativeness of earnings. The results provide valuable implications for regulators, investors, and corporate decision-makers, especially in socially sensitive and high-risk industries such as energy.

Keywords: Corporate Social Responsibility Disclosure, Systemic Risk, Earnings Response Coefficient, Good Corporate Governance

1. Introduction

Financial statements play a critical role in conveying corporate financial information that reflects the condition and performance of a firm. Among the key components of financial reports, earnings are widely regarded as a central indicator used by investors to assess a firm's prospects (Putri, 2015). Earnings information is considered relevant because it has the potential to influence economic decisions made by market participants. This relevance is often observed through market reactions, particularly in the form of stock price movements surrounding earnings announcements. Consequently, earnings serve as a vital signal in understanding the relationship between corporate performance and investor perception in capital markets.

The Earnings Response Coefficient (ERC) is an essential metric used to measure the degree to which the market responds to earnings information, especially unexpected earnings. According to Scott (2009), ERC represents the sensitivity of stock returns to earnings surprises, thereby functioning as a proxy for the informativeness of accounting

data. A high ERC value suggests that reported earnings are perceived as informative and valuable for investment decisions. Empirical evidence by Park and Pincus (2001), as well as the seminal study by Ball and Brown (1968), indicates that earnings exceeding investor expectations are associated with positive abnormal returns, while earnings below expectations are linked to negative market reactions. Thus, ERC provides a quantifiable measure of how financial statement information is processed and valued by investors.

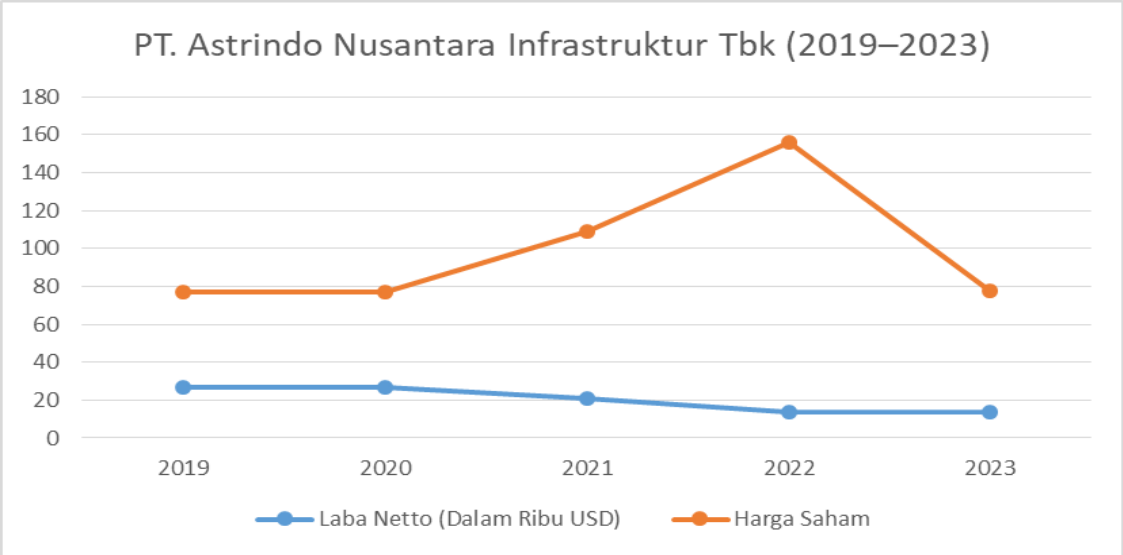

Figure 1. Stock Chart and Net Profit

An illustrative case can be observed in PT Astrindo Nusantara Infrastruktur Tbk, where earnings figures fluctuated downward from USD 27 million in 2019–2020 to USD 14 million in 2022–2023, while stock prices showed a significant upward trend during the same period. This divergence suggests that earnings alone may not fully capture investor response, as highlighted by Suaryana (2005), who argues that market reaction to earnings occurs only when the earnings are perceived as relevant. Supporting this view, Wulandari and Suprasto (2015) and Palupi (2006) found that market reactions depend not solely on earnings performance but also on investor perceptions of earnings quality and external contextual factors. These observations call for a deeper investigation into determinants that influence the magnitude of ERC, especially when earnings appear disconnected from market behavior.

In this context, Corporate Social Responsibility (CSR) Disclosure, systematic risk, and Good Corporate Governance (GCG) have emerged as critical variables influencing the responsiveness of the market to earnings announcements. CSR Disclosure, as part of non-financial reporting, is believed to signal ethical commitment and sustainability, thereby enhancing the credibility of financial information. While several studies have found CSR Disclosure to be significantly associated with ERC (e.g., Aprilia & Rahayu, 2023; Choi et al., 2013), other researchers argue that CSR reporting often lacks consistency and clarity, which limits its effectiveness in influencing investor perception (Dewi & Purbawangsa, 2018; Hapsari & Yuyetta, 2020).

Similarly, systematic risk—defined as the market-wide risk that cannot be diversified—has been linked to earnings informativeness. Stable market conditions tend to enhance investor confidence in reported earnings, thereby increasing ERC (Francis et al., 2004; Kurnia, 2018). However, contrasting results also exist, particularly in emerging markets like Indonesia, where investors may prioritize firm-level financial ratios over macroeconomic risks (Rahmawati, 2019; Harjanto & Putra, 2020).

GCG, on the other hand, is widely recognized as a governance mechanism that strengthens the reliability of corporate disclosures. Prior studies suggest that strong governance structures, especially those aligned with international standards such as the ASEAN Corporate Governance Scorecard (ACGS), can mitigate information asymmetry and enhance investor trust (Fithri & Arfianto, 2021; Sujarwati et al., 2022). Nonetheless, some findings indicate that the impact of GCG on ERC remains inconclusive due to symbolic implementation or formalistic compliance (Oktaviani & Rachmawati, 2017; Hidayah & Fitriani, 2021).

Building on these insights, this study proposes an integrated approach by examining the influence of CSR Disclosure and systematic risk on ERC, while incorporating GCG—measured using the ACGS framework—as a moderating variable. By focusing on the energy sector, which is characterized by complex value chains and heightened environmental scrutiny, this research aims to contribute a more nuanced understanding of how governance and disclosure practices interact with market risk in shaping investor responses to earnings.

This study offers two major contributions. First, it addresses the inconsistent empirical evidence in the literature by re-examining the determinants of ERC in the context of a dynamic and socially sensitive industry. Second, it introduces a robust moderation model using ACGS-based GCG evaluation, providing practical implications for regulators, investors, and corporate managers in enhancing the informational value of earnings reports in emerging markets.

2. Theoretical Background

2.1 Signaling Theory

Signaling theory, introduced by Spence (1973), addresses the issue of information asymmetry between two parties: the informed party (agent) and the less informed party (principal). In a corporate context, this theory posits that manager—who possess superior internal knowledge—communicate this information to external stakeholders such as investors through various signals, including financial reports and non-financial disclosures (Fauzan & Purwanto, 2017). The aim is to distinguish high-quality firms from lower-performing ones (Anugrah & Dianawati, 2020).

In this framework, signals such as Corporate Social Responsibility (CSR) disclosures and Good Corporate Governance (GCG) practices serve as strategic tools to reduce information asymmetry and enhance stakeholder trust. Positive signals, including transparent CSR initiatives and robust governance structures, are likely to improve investor perception, while negative or opaque signals may trigger skepticism. Afifah et al. (2023) emphasized that market behavior is significantly influenced by the nature and credibility of the signals communicated by firms.

CSR disclosure, in particular, is an important non-financial signal that conveys the firm's commitment to ethical, social, and environmental sustainability. According to signaling theory, high-quality CSR disclosure reassures investors about the company's long-term orientation and reduces uncertainty. Likewise, GCG practices signal that the company upholds transparency, accountability, and effective management oversight, which are fundamental for fostering investor confidence (Khomsiyah & Indira, 2017; Forum for Corporate Governance in Indonesia, 2001).

2.2 Market Reaction Theory

Market Reaction Theory asserts that capital markets respond to any new information disclosed by companies, whether financial or non-financial. Such reactions are reflected through changes in stock prices, trading volume, or return volatility (Jogiyanto, 2010). The theory is grounded in the assumption that investors interpret and act upon information that is perceived as value-relevant and credible.

According to Tandelilin (2010), positive market responses are associated with information that enhances investor confidence in a firm's future prospects—such as CSR disclosure and strong governance structures. Brigham and Houston (2014) highlighted the importance of information quality and the firm's disclosure reputation in determining the magnitude of market responses. Hartono (2017) further emphasized that transparency and disclosure clarity strengthen the relationship between reported earnings and stock price adjustments, confirming the predictive power of earnings announcements.

Within this theoretical perspective, the Earnings Response Coefficient (ERC) emerges as a measurable construct that captures market reaction to earnings information. ERC represents the degree to which unexpected earnings influence stock returns, with higher ERC values indicating stronger investor confidence in earnings informativeness (Putri & Wirakusuma, 2020; Maulidina & Muid, 2021).

Systematic risk—defined as the non-diversifiable risk stemming from macroeconomic factors such as inflation, interest rates, and political instability—also affects market reactions to earnings announcements. In conditions of elevated systematic risk, investors may exhibit more cautious behavior, thereby dampening the response to reported earnings (Sari & Subowo, 2019; Wulandari & Suaryana, 2021). Conversely, in stable market environments, investors are more likely to interpret earnings as credible indicators of future performance, resulting in stronger ERC.

2.3 Earnings Response Coefficient

The Earnings Response Coefficient (ERC), introduced by Ball and Brown (1968), measures the sensitivity of stock returns to unexpected earnings. It reflects how strongly the market reacts to earnings announcements, particularly when earnings deviate from investor expectations (Rahmawati et al., 2021).

ERC is influenced by various factors, including earnings quality, investor perceptions, and market conditions. Higher ERC values indicate that earnings are seen as more informative and credible (Mashayekhi & Aghel, 2016; Scott, 2015). Technically, ERC is estimated through the relationship between Cumulative Abnormal Return (CAR) and Unexpected Earnings (UE), which represent the market's response to new, unanticipated information (Rahmadani & Achyani, 2023).

In essence, ERC functions not only as a measure of market reaction but also as an indicator of the perceived relevance of accounting information, with stronger ERC suggesting higher investor trust in reported earnings.

2.4 Corporate Social Responsibility Disclosure

Corporate Social Responsibility (CSR) was first introduced by Bowen (1953) as a business obligation to align decisions with societal values. CSR disclosure reflects a company's ethical commitment to contribute positively to its external environment (Murni et al., 2021). It is not merely an additional activity, but a signal of public trust in a firm's sustainability (Suaidah, 2018). Moreover, CSR disclosure helps reduce information asymmetry beyond financial statements, particularly in social and environmental aspects (Aprilia & Rahayu, 2023).

CSR disclosure represents a long-term, ethical corporate strategy focused on transparency in social contributions, environmental protection, and employee welfare. In this study, CSR disclosure is measured using the Global Reporting Initiative G4 (GRI G4) framework—one of the most comprehensive international sustainability reporting standards.

The GRI G4 includes 91 disclosure items divided into General Standard Disclosures and Specific Standard Disclosures. The latter comprises three key dimensions: economic, environmental, and social aspects, each with detailed indicators to assess corporate sustainability performance.

2.5 Systematic Risk

Systematic risk refers to market-wide risk that cannot be eliminated through portfolio diversification, as it originates from macroeconomic factors such as inflation, interest rate changes, economic crises, and geopolitical instability (Sharpe, 1964). It reflects uncertainty that affects the entire market and industry sectors, not just individual firms.

This type of risk is commonly measured using beta (β), which indicates a stock's sensitivity to market return fluctuations (Jogiyanto, 2010). A higher beta denotes greater exposure to market volatility. Beta is typically calculated through linear regression between individual stock returns and market returns and serves as a key component in asset pricing models such as the Capital Asset Pricing Model (CAPM) (Brigham & Daves, 2010).

According to Fama and French (2004), systematic risk is a primary driver of return variation in efficient markets, as investors demand compensation for bearing such risk. Empirical evidence (Soekartawi et al., 2020) suggests that higher systematic risk can weaken the relationship between earnings information and market response, resulting in a lower Earnings Response Coefficient. Thus, systematic risk not only influences expected returns but also moderates the market's reaction to accounting information.

2.6 Hypothesis Development

2.6.1 CSR Disclosure and Earnings Response Coefficient

CSR disclosure serves as a positive signal that reduces information asymmetry by publicly demonstrating a firm's commitment to sustainability and social responsibility. This transparency fosters investor trust and enhances the perceived quality of reported earnings, potentially increasing ERC. Prior studies (Aprilia & Rahayu, 2023; Nasih et al., 2019; Putri & Suaryana, 2021) support a positive relationship between CSR disclosure and ERC, indicating that well-communicated CSR efforts strengthen the market's reaction to earnings announcements.

H1: Corporate Social Responsibility Disclosure has a significant effect on the Earnings Response Coefficient.

2.6.2 Systematic Risk and Earnings Response Coefficient

Systematic risk influences investor perception of earnings credibility. In high-risk environments, investors may be skeptical of reported earnings, leading to weaker market responses and lower ERC values. Conversely, in low-risk environments, earnings are perceived as more reliable, thereby strengthening ERC (Kurnia, 2018; Hasanah, 2023; Rici et al., 2023).

H2: Systematic Risk has a significant effect on the Earnings Response Coefficient.

2.6.3 The Moderating Role of Good Corporate Governance on the CSR–ERC Relationship

GCG acts as a credibility enhancer, amplifying the signaling value of CSR disclosures. Firms with robust governance structures are more likely to be perceived as trustworthy, thereby strengthening the impact of CSR on ERC. Effective governance ensures that CSR disclosures are not symbolic but genuinely reflect ethical corporate behavior (Sujarwati et al., 2022; Yuliandhari & Fadila, 2024; Utami & Wahyudi, 2021).

H3: Good Corporate Governance moderates the relationship between CSR Disclosure and Earnings Response Coefficient.

2.6.4 The Moderating Role of Good Corporate Governance on the Systematic Risk–ERC Relationship

GCG can mitigate the negative impact of systematic risk by providing transparent and accountable managerial practices. Under conditions of macroeconomic uncertainty, firms with strong governance frameworks are perceived as better equipped to navigate risks, thereby maintaining or even enhancing the informativeness of their earnings reports (Hasanah, 2023; Rici et al., 2023).

H4: Good Corporate Governance moderates the relationship between Systematic Risk and Earnings Response Coefficient.

3. Methods

3.1 Research Design

This study adopts a quantitative associative research approach to examine the relationship between *Corporate Social Responsibility Disclosure* (CSRD), *systematic risk*, and *Earnings Response Coefficient* (ERC), with *Good Corporate Governance* (GCG) as a moderating variable. The research is grounded in Signaling Theory, which posits that companies convey signals to investors through both financial and non-financial disclosures. In addition, the study is supported by the Market Reaction Theory, which explains how capital markets respond to value-relevant and material information, such as earnings and risk factors.

The study population comprises all energy sector companies listed on the Indonesia Stock Exchange (IDX) during the period 2019–2023. The energy sector was selected due to its high exposure to environmental and social issues, as well as global economic fluctuations—making it particularly relevant for examining the impact of CSRD and systematic risk on market reactions.

Table 1. Sample Selection Procedure

No	Criteria	Remaining Firms
1	Energy sector companies listed on the Indonesia Stock Exchange (IDX) during 2019–2023	90
2	Companies not consistently listed on IDX throughout 2019–2023	(28)
3	Companies without complete sustainability and annual reports for all years (2019–2023)	(37)
Number of Samples		25
Number of Years of Observation		5
Amount of Research Data		125

Source: data processed by researchers (2025)

DOI: https://doi.org/10.61990/ijamesc.v3i5.595 e-ISSN 2986-8645

3.3. Variable Measurement

1) Earnings Response Coefficient (ERC): Measured using the Ohlson model by regressing abnormal stock returns on unexpected earnings.
2) Corporate Social Responsibility Disclosure (CSRD): Assessed using a disclosure index based on the Global Reporting Initiative (GRI) Standards, focusing on economic, environmental, and social aspects.
3) Systematic Risk: Proxied by beta (β), calculated through linear regression of individual stock returns against market returns.
4) Good Corporate Governance (GCG): Measured using the ASEAN Corporate Governance Scorecard (ACGS), which evaluates five core principles: shareholders' rights, equitable treatment of shareholders, role of stakeholders, disclosure and transparency, and responsibilities of the board.

Table 2. Operational Variable

Variable	Operational Definition / Measurement	Measurement Scale	Source
Earnings Response Coefficient (ERC) (Y)	Measured by regressing cumulative abnormal return (CAR) on unexpected earnings (UE): $CARit = \alpha + \beta\ UEit + \varepsilon it$	Ratio	Yuliandhari & Fadila (2024)
Corporate Social Responsibility Disclosure (CSRD) (X_1)	Disclosure index based on GRI Standards. Scored 1 if the item is disclosed, 0 otherwise. A total of 91 disclosure items across economic, environmental, and social dimensions.	Ratio	Nymmo & Siregar (2019)
Systematic Risk (X_2)	Measured using beta (β), derived from the regression of individual stock return against market return: $Rit = \alpha + \beta\ Rmt + \varepsilon it$	Ratio	Afifah et al. (2023)
Good Corporate Governance (GCG) (Z)	Measured using the ASEAN Corporate Governance Scorecard (ACGS), consisting of 5 main principles: 1) Shareholder Rights (26 items) 2) Equitable Treatment (17 items) 3) Role of Stakeholders (21 items) 4) Disclosure and Transparency (42 items) 5) Board Responsibilities (79 items). Each item is scored based on compliance.	Ratio	ASEAN Capital Market Forum (ACMF)

3.4 Data Analysis Technique

The study employs panel data regression analysis to examine both cross-sectional and time-series variations. The analysis is conducted using EViews 12 software, which supports estimation through three model approaches:

1) Common Effect Model (CEM),
2) Fixed Effect Model (FEM),
3) Random Effect Model (REM).

Model selection is based on diagnostic tests such as the Chow test, Hausman test, and Lagrange Multiplier test to ensure the most appropriate estimation technique is used. Panel data model regression in this research is:

$$Yit = \alpha + \beta 1\ X1it + \beta 2\ X2\ it + \beta 3\ Zit + \mathcal{E}it \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ 1$$

$$Yit = \alpha + \beta 1\ X1it + \beta 2\ X2\ it + \beta 3\ M1it + \beta 4\ M2it + \mathcal{E}it \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 2$$

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4. Results and Discussion

4.1 Descriptive Statistics

The variables employed in this study include the dependent variable (Y), Earnings Response Coefficient (ERC); the independent variables (X), namely Corporate Social Responsibility Disclosure (CSR) and Systematic Risk; and the moderating variable (Z), Good Corporate Governance (GCG). Descriptive statistical analysis was conducted to understand the general distribution and characteristics of the research variables. Table 3 presents the descriptive statistics, including measures of central tendency (mean, median), dispersion (standard deviation).

Table 3. Descriptive Statistics Result

Statistic	Earnings Response Coefficient	Corporate Social Responsibility Disclosure	Systematic Risk	Good Corporate Governance
Mean	0.3113	0.8586	1.1100	0.8796
Median	0.0000	0.8571	0.9970	0.8910
Maximum	0.9226	0.9780	6.8980	0.9620
Minimum	-0.5544	0.7253	-8.7200	0.7090
Standard Deviation	0.2414	0.0616	0.8011	0.0674

Source: data processed by researchers (2025)

1) Earnings Response Coefficient (ERC)
   The minimum value of the ERC variable is –0.055, recorded by PT. IMC Pelita Logistik Tbk in 2019, while the maximum value is 0.922, recorded by PT. Perusahaan Gas Negara Tbk in 2022. The mean value is 0.311 and the standard deviation is 0.241. Since the mean is greater than the standard deviation, it indicates a relatively homogeneous distribution, suggesting that the ERC data are well dispersed and unbiased.
2) Corporate Social Responsibility (CSR) Disclosure
   The CSR Disclosure variable has a minimum value of 0.725, recorded by Radiant Utama Interinsco Tbk in 2019, and a maximum value of 0.978, recorded by PT. Perusahaan Gas Negara Tbk in 2023. The mean value is 0.858, and the standard deviation is 0.061. The small standard deviation relative to the mean suggests a homogeneous data distribution, indicating consistent CSR reporting practices among the sampled firms.
3) Systematic Risk
   The Systematic Risk variable displays a minimum value of –8.720 and a maximum value of 6.890, both recorded by Humpuss Intermoda Transportasi in 2023. The mean value is 1.110, and the standard deviation is 0.801. The mean being higher than the standard deviation indicates moderate homogeneity in the data, although the wide range suggests considerable variation in risk exposure among firms.
4) Good Corporate Governance (GCG)
   The minimum GCG score is 0.709, recorded by PT. Indika Energy Tbk in 2019, and the maximum is 0.962, recorded by PT. Golden Energy Mines Tbk in 2023. The mean value is 0.879 with a standard deviation of 0.067. This indicates that the GCG variable is relatively homogeneous, showing consistent corporate governance practices across the sample firms during the observation period.

4.2 Panel Data Regression Model Estimation

This study employs panel data regression analysis to examine the influence of independent variables on the dependent variable using three estimation approaches: Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). Each model offers distinct assumptions regarding the heterogeneity across cross-sectional units and over time.

Table 4. Summary of Model Estimation and Selection Results

Model Type	Description	Criteria/Test	Probability Value	Decision/Conclusion
Without Moderation				
Chow Test	Common vs. Fixed Effect	F = 1.916; Chi² = 48.51	0.0140 / 0.0022	FEM is preferred over CEM
Hausman Test	Fixed vs. Random Effect	Chi² = 7.195	0.0659	REM is preferred over FEM
LM Test	Common vs. Random Effect	Chi² = 4.127	0.0422	REM is preferred over CEM
Final Model Selection				Random Effect Model (REM)
With Moderation				
Chow Test	Common vs. Fixed Effect	F = 1.951; Chi² = 49.67	0.0120 / 0.0016	FEM is preferred over CEM
Hausman Test	Fixed vs. Random Effect	Chi² = 7.994	0.0918	REM is preferred over FEM
LM Test	Common vs. Random Effect	Chi² = 4.144	0.0418	REM is preferred over CEM
Final Model Selection				Random Effect Model (REM)

Source: data processed by researchers (2025)

Based on the table above, the panel data regression model that will be analyzed in this study is in the Random Effect Model (REM).

4.3 Hypothesis Testing

Table 5. Panel Data Regression Analysis Without Moderation

Test Type / Variable	Coefficient	Std. Error	t-Statistic	Probability	Interpretation
Partial Test (t-test)					
Constant (C)	-1.9966	0.1952	-10.2300	0.0000	Significant
CSR Disclosure (X1)	1.4656	0.3519	4.1642	0.0001	Significant (H1 accepted)
Systematic Risk (X2)	-0.0067	0.0078	-0.8611	0.3909	Not significant (H2 rejected)
Good Corporate Governance (Z)	0.8606	0.3202	2.6877	0.0082	Significant (H3 accepted)
Simultaneous Test (F-test)					
F-statistic	35.9498	–	–	0.0000	Significant (Model is fit for prediction)

Coefficient of Determination					
R-squared (weighted)	0.4713	–	–	–	47.13% of variance in the dependent variable explained by the model
Adjusted R-squared (weighted)	0.4582	–	–	–	Adjusted for number of predictors

Source: data processed by researchers (2025)

Table 5 presents the results of the multiple linear regression analysis conducted to examine the effect of CSR Disclosure, Systematic Risk, and Good Corporate Governance on the dependent variable.

The partial test (t-test) results indicate that CSR Disclosure (X1) has a positive and statistically significant effect on the dependent variable at the 1% significance level (coefficient = 1.4656; $p = 0.0001$). This finding supports Hypothesis 1 (H1), suggesting that greater CSR disclosure enhances the value or response of the dependent outcome. Similarly, Good Corporate Governance (Z) also shows a significant positive effect (coefficient = 0.8606; $p = 0.0082$), confirming Hypothesis 3 (H3). In contrast, Systematic Risk (X2) exhibits a negative but statistically insignificant effect (coefficient = –0.0067; $p = 0.3909$), implying that Hypothesis 2 (H2) is not supported by the data.

The simultaneous test (F-test) yields an F-statistic of 35.9498 with a significance level of 0.0000, indicating that the regression model is statistically significant as a whole. This confirms that, collectively, the independent variables contribute meaningfully to explaining variations in the dependent variable.

The coefficient of determination (R-squared) for the weighted model is 0.4713, which means that approximately 47.13% of the variance in the dependent variable can be explained by the three independent variables included in the model. The adjusted R-squared of 0.4582 accounts for the number of predictors, suggesting that the model maintains good explanatory power even after adjusting for model complexity.

In summary, the regression results provide empirical support for the influence of CSR disclosure and good corporate governance on the dependent variable, while systematic risk does not exhibit a significant individual effect in this model. The overall model is statistically robust and explains a moderate proportion of variance, making it suitable for interpretation and further analysis.

Table 6. Panel Data Regression Analysis Without Moderation

Variable	Coefficient	Std. Error	t-Statistic	Probability	Interpretation
Constant (C)	-1.2192	0.3152	-3.8684	0.0002	Significant
CSR Disclosure (X1)	0.5733	0.7449	0.7697	0.4430	Not significant (H1 rejected)
Systematic Risk (X2)	-0.0365	0.0980	-0.3729	0.7099	Not significant (H2 rejected)
Interaction Term M1	0.9852	0.4847	2.0325	0.0443	Significant (moderation exists)
Interaction Term M2	0.0329	0.1082	0.3039	0.7617	Not significant

Source: data processed by researchers (2025)

Table 6 presents the regression results of the moderation model examining the effects of CSR Disclosure and Systematic Risk on the dependent variable, along with the interaction terms (M1 and M2) to test for moderating effects.

The constant (C) is statistically significant with a coefficient of –1.2192 (p = 0.0002), indicating that when all independent variables are zero, the dependent variable tends to be negative at a significant level.

The main effect of CSR Disclosure (X1) is positive (β = 0.5733), but not statistically significant (p = 0.4430), implying that CSR alone does not significantly affect the dependent variable in this model. Similarly, the Systematic Risk (X2) shows a negative but also non-significant effect (β = –0.0365; p = 0.7099), suggesting that variations in systematic risk do not significantly influence the dependent outcome.

The first interaction term (M1) is statistically significant (β = 0.9852; p = 0.0443), indicating that the moderating variable associated with M1 significantly influences the relationship between an independent variable (most likely CSR or Risk) and the dependent variable. This confirms the existence of a moderation effect, thus supporting the corresponding hypothesis.

In contrast, the second interaction term (M2) is not statistically significant (β = 0.0329; p = 0.7617), indicating that no significant moderating effect is present for that interaction.

4.4 Discussion

4.4.1 The Moderating Effect of Good Corporate Governance on the Relationship Between CSR Disclosure and Earnings Response Coefficient

The interaction between Corporate Social Responsibility (CSR) disclosure and Good Corporate Governance (GCG), represented by the variable M1, shows a statistically significant positive effect on the Earnings Response Coefficient (ERC) (coefficient = 0.985, p = 0.0443). This indicates that GCG positively moderates the influence of CSR disclosure on ERC. In other words, the presence of robust governance mechanisms amplifies the market's responsiveness to CSR-related information disclosed by the firm.

This result supports Hypothesis 3, which proposes that GCG reinforces the signaling effect of CSR. In line with Signaling Theory, firms with strong GCG are perceived as more transparent and accountable, making their CSR disclosures more credible to investors. Effective governance mechanisms such as independent boards, active audit committees, and shareholder rights protection increase the perceived reliability of all disclosures, including non-financial ones.

The finding is consistent with previous studies by Sujarwati et al. (2022) and Yuliandhari and Fadila (2024), which concluded that GCG strengthens the relationship between CSR disclosure and ERC. These studies argue that investors are more likely to respond positively to earnings information when they trust the governance structure behind the disclosures.

This evidence is especially relevant in sectors such as energy, where social and environmental performance has become increasingly important for stakeholders. Companies in this sector often face scrutiny related to sustainability, climate policy, and ethical operations. Therefore, GCG serves as a complementary factor that legitimizes the firm's CSR efforts and supports stronger market reactions to earnings reports.

4.4.2 The Moderating Effect of Good Corporate Governance on the Relationship Between Systematic Risk and Earnings Response Coefficient

The second interaction term, M2, representing the moderation effect of GCG on the relationship between Systematic Risk and ERC, is statistically not significant (coefficient

= 0.0328, p = 0.7617). This result leads to the rejection of Hypothesis 4. The presence of good governance practices does not appear to strengthen or weaken the effect of systematic risk on the market's reaction to earnings announcements.

This outcome indicates that, unlike CSR disclosure, systematic risk is not perceived as a signal that can be influenced by internal governance mechanisms. Investors may consider systematic risk—which is mostly driven by market-wide and macroeconomic factors—as external and beyond the control of the firm's internal governance practices. As such, governance does not add informational value in the context of systematic risk.

These findings are in line with those of Hasanah (2023) and Rasnawati (2020), who found that GCG has limited ability to moderate the impact of external risk factors on earnings response. In emerging markets like Indonesia, where financial markets may exhibit inefficiencies and information asymmetry, investor reactions to earnings announcements are often more strongly influenced by firm-specific disclosures than by statistical indicators such as beta.

Additionally, this result could reflect the nature of GCG implementation in the Indonesian corporate landscape, which may still be perceived as formalistic or compliance-driven, rather than performance-driven. Without substantive governance enforcement and investor trust, GCG may lack the capacity to alter how external risks are evaluated in relation to earnings reports.

5. Conclusion

This study investigated the impact of Corporate Social Responsibility (CSR) Disclosure and Systematic Risk on the Earnings Response Coefficient (ERC), while also examining the moderating role of Good Corporate Governance (GCG). Based on panel data regression using the Random Effect Model, several key conclusions can be drawn:

1) CSR Disclosure significantly increases ERC, indicating that non-financial disclosures are perceived by investors as signals of ethical commitment, transparency, and long-term value. This supports the Signaling Theory, where firms with stronger CSR practices receive more favorable market reactions to earnings announcements.
2) Systematic Risk does not significantly influence ERC, suggesting that external macroeconomic uncertainty (as reflected by beta) is not a major driver of investor responsiveness to earnings in the Indonesian energy sector. This finding aligns with Market Reaction Theory, emphasizing that only value-relevant and credible information triggers meaningful market responses.
3) GCG positively moderates the relationship between CSR Disclosure and ERC, implying that the effectiveness of CSR disclosures is enhanced when firms are governed by strong, transparent, and accountable structures. This reinforces the role of GCG in strengthening investor trust and reducing information asymmetry.
4) GCG does not moderate the relationship between Systematic Risk and ERC, indicating that corporate governance mechanisms are not sufficient to offset the influence of market-wide risk on earnings informativeness. This may reflect limitations in the substance and perception of GCG practices in emerging markets.

Overall, the study highlights that sustainability disclosures and governance quality are essential in enhancing earnings credibility, particularly in industries with high social and environmental exposure. Companies and regulators are encouraged to prioritize transparent CSR reporting and substantive GCG practices to strengthen market confidence and promote sustainable investment decisions.

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