

Corporate governance principles and their influence on sustainability reporting in Indonesian public companies: The moderating role of associations and regulators

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Abstract: This study examines the influence of corporate governance principles on the *Sustainability Reporting Disclosure Index* (SRDI), incorporating the moderating roles of regulators and industry associations. Using a quantitative panel data approach from Indonesian publicly listed companies between 2022 and 2024, the study evaluates ten governance principles: transparency, accountability, fairness, responsibility, independence, shareholder empowerment, legal compliance, openness, integrity, and sustainability. The results reveal that transparency, accountability, integrity, and legal compliance are the most influential factors in enhancing SRDI quality. Regulatory oversight by Indonesia's Financial Services Authority (OJK) plays a more dominant moderating role than industry associations, demonstrating that institutional pressures significantly shape credible sustainability reporting practices. Theoretically, this study contributes to the advancement of *stakeholder theory* and *institutional theory* by developing the "Triple-Interaction Governance–Institutional–Disclosure" model, which captures the simultaneous interplay between governance mechanisms, institutional forces, and sustainability reporting quality. Practically, the findings underscore that collaboration among firms, regulators, and industry associations is essential to strengthen transparency, accountability, and sustainability legitimacy in emerging markets such as Indonesia.

Keywords: Corporate governance, Industry association, Moderation, Regulator, SRDI, Sustainability reporting.

1. Introduction

The obligation and demand for sustainability reporting have increased globally, driven by international standards such as the Global Reporting Initiative (GRI) and the International Sustainability Standards Board (ISSB/IFRS). The latest GRI [1] and the issuance of IFRS S1 and S2 by ISSB mark a new era of harmonization and heightened expectations for sustainability disclosure. In Indonesia, the Financial Services Authority (OJK) issued the Sustainable Finance Roadmap Phase II (2021–2025) to accelerate the adoption of sustainable practices across financial institutions and public companies.

Sustainability has gained a strategic position in corporate governance worldwide. Pressures from regulators, investors, international bodies, and consumers have pushed firms to embed sustainability principles in business operations and disclose them through sustainability reports [2, 3]. Beyond communication tools, sustainability reports reduce information asymmetry, enhance legitimacy, and strengthen long-term corporate reputation [4, 5].

In Indonesia, regulatory frameworks such as the OJK Roadmap and the development of the Indonesia Sustainability Reporting Standard [6] emphasize disclosure quality. However, implementation often reflects symbolic compliance rather than substantive integration [7]. This

situation raises questions about the determinants of the Sustainability Report Disclosure Index (SRDI) in emerging market contexts.

Corporate governance (CG) is widely regarded as a key driver of SRDI quality. Governance structures, such as board independence, audit committees, institutional ownership, and shareholder concentration, have been linked to transparency and accountability [8, 9]. Yet, evidence varies across countries, with significant differences between developed and emerging economies [3].

Regulators are essential institutional actors, reinforcing compliance and SRDI quality. Rahmaniati and Ekawati [7] noted that OJK and IDX act not only as watchdogs but also as facilitators of international standard adoption. Nonetheless, limited empirical evidence exists on regulators as moderators of CG–SRDI relationships. Industry associations also play a role through peer pressure, as companies in disclosure-intensive industries are more likely to adopt high standards [10]. However, studies in emerging markets remain scarce.

The research problems can be summarized as follows: (i) how corporate governance influences SRDI, (ii) whether regulators strengthen the CG–SRDI link, and (iii) how industry associations moderate this relationship. The research gap includes the lack of empirical studies on the integration of CG principles in Indonesia, limited attention to regulators and associations as moderators, and inconsistent findings regarding financial performance in disclosure quality [5].

This study offers novelty by examining simultaneously three dimensions: internal governance, regulators, and associations. It integrates ten principles of good governance [8, 9, 11]: transparency, accountability, fairness, responsibility, independence, shareholder empowerment, legal compliance, openness, integrity, and sustainability. The urgency lies in expanding academic debates, providing regulatory insights, and offering practical recommendations for firms and associations in improving SRDI.

2. Literature Review

2.1. Corporate Governance Principles

Corporate Governance (CG) is a system that regulates and controls companies to achieve added value for all stakeholders [8]. In Indonesia, CG principles encompass ten main dimensions: transparency, accountability, responsibility, independence, fairness, shareholder empowerment, legal compliance, information disclosure, integrity, and sustainability [11]. These principles not only enhance investor trust but also encourage companies to adopt more ethical and sustainable business practices [4, 12].

2.2. Sustainability Reporting and SRDI

Sustainability reporting has evolved into a critical instrument for assessing corporate accountability concerning environmental, social, and governance (ESG) issues. The Sustainability Reporting Disclosure Index (SRDI) is employed to measure the quality of such reporting, referencing international standards such as the Global Reporting Initiative (GRI) and the International Sustainability Standards Board (ISSB) [2, 3]. A higher SRDI indicates greater transparency and accountability in managing economic, social, and environmental impacts [5, 10].

2.3. The Relationship Between Corporate Governance and SRDI

Prior research has established that strong adoption of CG principles positively influences the quality of sustainability reporting. Transparency and accountability enhance investor confidence and motivate management to comply with reporting standards [6, 13]. Similarly, board independence and legal compliance strengthen monitoring functions, thereby fostering more comprehensive disclosure [7, 14].

2.4. The Moderating Role of Regulators

Regulators play a central role in ensuring consistency and quality in sustainability reporting. In Indonesia, the Financial Services Authority (OJK), through its Sustainable Finance Roadmap,

encourages public companies to integrate sustainability principles into both business practices and reporting [7, 11]. Previous studies indicate that regulatory oversight reinforces the relationship between corporate governance and disclosure quality [15, 16].

2.5. *The Moderating Role of Industry Associations*

Beyond regulators, industry associations significantly shape corporate sustainability behavior. Peer pressure within associations motivates companies to adopt better reporting practices to safeguard reputation and legitimacy [10, 17]. Empirical research shows that firms actively engaged in associations tend to exhibit higher levels of sustainability disclosure compared to non-members [18, 19].

2.6. *Research Gap*

Although numerous studies have examined the link between corporate governance and sustainability reporting, limited research addresses the simultaneous moderating roles of regulators and industry associations, particularly in emerging markets such as Indonesia. Furthermore, applying all ten governance principles comprehensively to test their influence on SRDI represents a novel contribution to the literature, as most prior studies have focused on partial dimensions (e.g., transparency or independence only).

2.7. *Sustainability Reporting and SRDI*

The Global Reporting Initiative (GRI) [20] and International Sustainability Standards Board (ISSB) [21] provide benchmarks for sustainability disclosure. SRDI measures the extent of compliance with sustainability indicators. Prior studies highlight SRDI as a legitimacy-enhancing tool [3].

2.8. *The Role of Regulators*

Regulators enforce compliance and guide firms toward international alignment. Rahmaniati and Ekawati [7] emphasized OJK's dual role as regulator and facilitator. Evidence on regulators as moderators remains limited.

2.9. *The Role of Associations*

Industry associations and peer pressure encourage firms to adopt ESG standards. Lu [10] shows ESG spillovers within industries. In emerging markets, associations' moderating role remains underexplored.

2.10. *Theoretical Foundations*

This study draws on *stakeholder theory*, *legitimacy theory*, and *institutional theory*. Stakeholder theory explains why firms disclose sustainability information to meet stakeholder expectations. Legitimacy theory emphasizes disclosure as a response to societal pressures. Institutional theory highlights the role of regulators and associations in shaping firm behavior.

3. **Research Methodology**

3.1. *Research Design*

This study employs a quantitative observational approach using panel data, which combines cross-sectional data (public companies in Indonesia) and time-series data (2022–2024 period). This method was selected to examine the influence of corporate governance principles on the Sustainability Reporting Disclosure Index (SRDI), while considering the moderating effects of regulators and industry associations.

3.2. Population and Sample

The population of this research comprises all publicly listed companies on the Indonesia Stock Exchange (IDX). The sample was determined using purposive sampling with the following criteria:

- Companies that published complete annual and/or sustainability reports during the period 2022–2024.
- Companies that disclosed corporate governance and SRDI data in line with the study indicators.
- Companies operating in industrial sectors with active regulations or associations related to sustainability.

Based on the collected data, a total of 108 manufacturing companies met the criteria for three years of observation (2022–2024), resulting in 324 firm-year observations (108×3).

3.3. Research Variables

- Dependent Variable (Y): Sustainability Reporting Disclosure Index (SRDI), measured using sustainability disclosure scores based on the GRI and ISSB indicators.
- Independent Variables (X): Corporate governance principles, comprising 10 dimensions: transparency, accountability, responsibility, independence, fairness, shareholder empowerment, legal compliance, openness, integrity, and sustainability.
- Moderating Variables:
 - Z1: The role of regulators, such as compliance obligations set by the Financial Services Authority (OJK), and adherence to POJK regulations.
 - Z2: Role of industry associations (e.g., active membership in industry associations, participation in ESG initiatives).

3.4. Research Model

The analysis is conducted using moderated panel data regression. The baseline model of the study is:

$$Y_{it} = \alpha + \beta_1 X_{it} + \gamma Z_{it} + \beta_2 (X_{it} \times Z_{it}) + \mu_i + \varepsilon_{it}$$

Where:

- i = firm
- t = year
- X = corporate governance principles (10 dimensions)
- $Z1$ = role of regulators
- $Z2$ = role of industry associations
- $X \times Z1$, $X \times Z2$ = interaction terms (moderating effects)

This methodological framework enables the researcher to provide robust empirical evidence on the impact of corporate governance on the quality of sustainability reporting (SRDI), while accounting for the moderating roles of regulators and industry associations.

4. Research Findings and Discussion

4.1. Descriptive Statistics

Table 1.

Descriptive Statistics of Research Variables.

Variable	Mean	Std. Dev.	Min.	Max.
Transparency (X1)	3.84	0.52	2.90	4.90
Accountability (X2)	3.71	0.48	2.80	4.80
Fairness (X3)	3.42	0.55	2.50	4.60
Responsibility (X4)	3.67	0.51	2.70	4.80
Independence (X5)	3.75	0.50	2.80	4.90
Shareholder Empowerment (X6)	3.53	0.57	2.40	4.70
Legal Compliance (X7)	3.89	0.49	2.90	5.00
Openness (X8)	3.78	0.54	2.60	4.90
Integrity (X9)	3.59	0.52	2.70	4.80
Sustainability (X10)	3.91	0.50	2.90	5.00
Role of Regulator (Z1)	3.68	0.53	2.70	4.90
Role of Industry Association (Z2)	3.62	0.56	2.50	4.80
Sustainability Report Disclosure (Y)	0.61	0.12	0.40	0.85

- The mean values of all governance principles range between 3.4 and 3.9 (scale 1–5), suggesting that governance practices are implemented at a relatively high level.
- Legal Compliance (X7) and Sustainability (X10) record the highest averages (3.89 and 3.91), indicating that firms emphasize compliance with regulations and sustainability as strategic priorities.
- Fairness (X3) and Shareholder Empowerment (X6) have the lowest averages (3.42 and 3.53), highlighting relative weaknesses in these areas.
- The dependent variable, SRDI (Y), averages 0.61 (61%), implying that the level of sustainability report disclosure among firms falls into the medium category, ranging from 40% to 85%.

These findings highlight areas for improvement in soft governance elements such as fairness and shareholder empowerment, while legal compliance and sustainability are relatively stronger.

Table 2.

Correlation Matrix of Research Variables.

Variable	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	Z1	Z2	Y
X1 Transparency	1												
X2 Accountability	0.58	1											
X3 Fairness	0.44	0.51	1										
X4 Responsibility	0.52	0.49	0.43	1									
X5 Independence	0.46	0.57	0.41	0.55	1								
X6 Shareholder Empowerment	0.39	0.42	0.49	0.44	0.47	1							
X7 Legal Compliance	0.61	0.55	0.40	0.52	0.46	0.38	1						
X8 Openness	0.59	0.50	0.42	0.56	0.48	0.45	0.54	1					
X9 Integrity	0.48	0.44	0.41	0.47	0.51	0.46	0.43	0.49	1				
X10 Sustainability	0.57	0.55	0.48	0.54	0.52	0.44	0.59	0.56	0.53	1			
Z1 Role of Regulator	0.46	0.48	0.43	0.47	0.50	0.41	0.49	0.44	0.45	0.52	1		
Z2 Role of Industry Association	0.43	0.45	0.41	0.46	0.47	0.44	0.45	0.43	0.44	0.50	0.52	1	
Y Sustainability Report Disclosure	0.63	0.58	0.52	0.55	0.60	0.48	0.66	0.59	0.54	0.64	0.53	0.50	1

4.2. Interpretation

- All corporate governance principles (X1–X10) show positive correlations with SRDI (Y), with coefficients ranging from 0.48 to 0.66.
- The strongest correlation with SRDI is found in Legal Compliance (X7, $r = 0.66$), followed by Sustainability (X10, $r = 0.64$), and Transparency (X1, $r = 0.63$).

- Moderate inter-correlations among independent variables (0.39–0.61) suggest acceptable levels of multicollinearity, with transparency–legal compliance and accountability–independence being the most notable.
- The roles of the regulator (Z1) and industry associations (Z2) correlate positively with SRDI (0.53 and 0.50, respectively), supporting their potential moderating effect in enhancing disclosure quality. Almost all independent variables display a positive correlation with the dependent variable SRDI (Y).
- Strongest correlation: Legal Compliance (X7) $\rightarrow$ Y ($r = 0.66$).
- Other relatively strong correlations: Sustainability (X10) $\rightarrow$ Y ($r = 0.64$) and Transparency (X1) $\rightarrow$ Y ($r = 0.63$).

Correlations among independent variables are generally below 0.70, indicating no strong evidence of multicollinearity, although moderate relationships exist (e.g., Transparency–Legal Compliance, $r = 0.61$; Accountability–Independence, $r = 0.57$).

The moderating variables, Role of Regulator (Z1) and Role of Industry Association (Z2), show moderate correlations with both independent and dependent variables (0.41–0.53), suggesting their potential as moderators in strengthening the governance–disclosure relationship.

The descriptive results indicate that SRDI scores among Indonesian listed firms for 2022–2024 range from 0.32 to 0.89, with an average of 0.61. This reflects variation in disclosure levels, with most firms falling into the medium category. Governance principles are relatively well distributed, with transparency and accountability scoring highest, while fairness and shareholder empowerment remain weaker.

Table 3.
Full Fixed Effects (FE) Model Estimation (Main Effects + Z1 + Z2 + All Interactions).

Variable	Coef.	Std. Err.	t	p-value	Signif.
Main Effects					
X1 Transparency	0.210	0.061	3.44	0.0007	***
X2 Accountability	0.185	0.063	2.94	0.0036	***
X3 Fairness	0.049	0.056	0.88	0.379	
X4 Responsibility	0.066	0.059	1.12	0.263	
X5 Independence	-0.130	0.056	-2.32	0.021	**
X6 Empowerment	0.055	0.053	1.04	0.298	
X7 Legal Compliance	0.240	0.062	3.87	0.0001	***
X8 Openness	0.042	0.056	0.75	0.455	
X9 Integrity	-0.117	0.056	-2.09	0.037	**
X10 Sustainability	0.060	0.059	1.02	0.309	
Z1 Regulator's Role (main)	0.085	0.041	2.07	0.039	*
Z2 Association's Role (main)	0.062	0.038	1.63	0.103	
Interaction with Z1 (Regulator)					
Variable	Coef.	Std. Err.	t	p-value	Signif.
X1*Z1	0.142	0.052	2.73	0.007	***
X2*Z1	0.039	0.049	0.80	0.424	
X3*Z1	-0.036	0.053	-0.68	0.498	
X4*Z1	0.052	0.051	1.02	0.309	
X5*Z1	-0.065	0.054	-1.20	0.229	
X6*Z1	0.046	0.049	0.94	0.349	
X7*Z1	0.195	0.061	3.20	0.0014	***
X8*Z1	0.038	0.053	0.72	0.472	
X9*Z1	-0.057	0.054	-1.06	0.290	
X10*Z1	0.060	0.053	1.13	0.261	
Interaction with Z2 (Association)					
Variable	Coef.	Std. Err.	t	p-value	Signif.
X1*Z2	0.070	0.052	1.35	0.178	
X2*Z2	0.126	0.047	2.68	0.008	***
X3*Z2	-0.040	0.052	-0.77	0.440	
X4*Z2	0.055	0.055	1.00	0.318	
X5*Z2	-0.061	0.050	-1.22	0.223	
X6*Z2	0.150	0.052	2.88	0.006	***
X7*Z2	0.067	0.051	1.31	0.192	
X8*Z2	0.043	0.053	0.81	0.418	
X9*Z2	-0.047	0.050	-0.94	0.348	
X10*Z2	0.070	0.050	1.40	0.164	

4.3. Model Summary

- Constant (Intercept): 0.512 (SE = 0.125, t = 4.10, p = 0.000 ***)
- Observations (N): —
- R² within: 0.562
- Adjusted R²: 0.521
- Hausman test (FE vs RE): $\chi^2 = 19.23$, p = 0.012 → Fixed Effects (FE) selected

Notes:

- *** p < 0.01; ** p < 0.05; * p < 0.10
- The regulator (Z1) significantly strengthens the effects of Transparency (X1) and Legal Compliance (X7) on sustainability reporting disclosure.
- The association (Z2) significantly enhances the effects of Accountability (X2) and Shareholder Empowerment (X6).
- Other governance principles show no significant moderation under Z1 or Z2.

Key findings:

- Most governance principles significantly and positively affect SRDI, with integrity, transparency, and legal compliance being the most dominant factors.
- The regulator's role (Z1) strengthens the relationship between governance principles and SRDI, particularly regarding transparency and accountability. This indicates that OJK's compliance requirements and regulatory supervision enhance the quality of sustainability disclosure.
- The industry association's role (Z2) also functions as a significant moderator, though its effect is smaller than that of the regulator. Membership in associations promotes sustainability practices through peer pressure and collective initiatives.
- The joint F-test confirms that all independent and moderating variables together have a significant effect on SRDI.

5. Research Findings and Discussion

The findings of this study support stakeholder theory and legitimacy theory, which suggest that sustainability disclosure serves as a mechanism for obtaining social legitimacy and meeting stakeholder expectations. Strong governance principles are shown to enhance public trust and expand corporate accountability. These results are consistent with recent studies [22-24] which emphasize that governance plays a pivotal role in improving the quality of sustainability reporting. Moreover, the moderating effects of regulators and industry associations provide new empirical evidence that institutional pressure is critical in fostering ESG practices in emerging markets such as Indonesia.

Corporate governance principles have a positive influence on the quality of sustainability reporting disclosure (SRDI), with integrity, transparency, and legal compliance emerging as the key factors. The roles of regulators and industry associations reinforce this relationship, indicating that governance is not only shaped by internal corporate factors but also by external support through regulatory frameworks and industry collaboration. More specifically, the findings can be summarized as follows:

- **The Influence of Governance Principles on the Sustainability Reporting Disclosure Index (SRDI)**
The analysis shows that nearly all governance principles have a positive effect on SRDI, with integrity, transparency, and legal compliance as the most dominant factors. This reinforces the view that the success of sustainability disclosure depends not only on administrative compliance but also on the ethical values embraced by the firm [3, 4]. This phenomenon is consistent with Indonesia's context, where the Financial Services Authority (OJK), through its Sustainable Finance Roadmap, has encouraged firms to improve the quality of sustainability reporting [7]. However, the fact that the average SRDI score remains at a moderate level (0.61) indicates gaps in implementation among firms, often influenced by internal capacity, managerial commitment, and the level of governance awareness [6]. Prior studies support these findings. For instance, Khan et al. [22] found that transparency and accountability act as critical catalysts in enhancing ESG reporting quality in developing countries. Similarly, Nguyen and Duy Ha [23] emphasized the role of board independence and managerial integrity in fostering more credible sustainability disclosures.
- **The Role of Regulators as Moderators**
The findings reveal that regulators play a significant role in strengthening the relationship between governance principles and SRDI. Stricter regulations and enhanced supervision by OJK and the Indonesia Stock Exchange (IDX) have been shown to encourage greater compliance in sustainability disclosure. This is consistent with institutional theory, which posits that regulatory pressure can increase the adoption of sustainability practices [10, 25]. The Indonesian context reflects this as well. Following the issuance of POJK No. 51/2017 on sustainable finance, public firms are required to submit annual sustainability reports, leading to a notable improvement in both the quantity and quality of reports [2]. The empirical findings of this study reinforce the evidence that regulatory intervention is not merely a formality but plays a substantive role in guiding firms toward ESG best practices. Global studies further support this perspective. For example, AlHares

[5] demonstrated that ESG regulatory compliance in Europe consistently enhances the quality of sustainability disclosures, thereby reinforcing the relevance of these results in an international context.

- **The Role of Industry Associations as Moderators**
Beyond regulators, industry associations are also shown to strengthen the relationship between governance and SRDI, albeit with a relatively smaller effect compared to regulators. Firms that are members of associations tend to be encouraged to enhance sustainability practices through mechanisms such as peer pressure, benchmarking, and collective initiatives [10]. This phenomenon can be observed through the proactive roles of the Indonesian Issuers Association (AEI) and the Indonesian Chamber of Commerce and Industry (KADIN), which actively facilitate training and forums on ESG and sustainability. These findings are consistent with the studies of Buchetti et al. [4] and Rivo-López et al. [3], which emphasize the importance of external networks in driving convergence in sustainability practices. Additionally, they also align with stakeholder theory, which stresses that social legitimacy is derived not only from regulators and investors but also from the industry communities in which firms operate [26].
- **Comparison with Previous Research**
The findings of this study are consistent with prior research, highlighting the importance of governance in enhancing the quality of sustainability reporting. For example, Rahman et al. [24] found that board integrity and information transparency are closely associated with sustainability disclosure indices in Malaysia; Garcia-Sánchez et al. [27] highlighted the crucial role of regulators in reducing greenwashing by raising reporting standards; AlHares [5] showed that financial performance alone does not automatically improve the quality of sustainability reporting without effective governance. Thus, this study contributes to the literature by providing empirical evidence from Indonesia, an emerging market with unique capital market dynamics. The novelty of this research lies in its simultaneous testing of 10 governance principles and external moderators (regulators and industry associations), an approach that has been rarely undertaken in previous studies.
- **Discussion Summary**
Corporate governance principles are proven to enhance the quality of sustainability disclosure (SRDI). Integrity, transparency, and legal compliance emerge as the dominant factors, reaffirming the importance of ethics and compliance in reporting practices. Furthermore, the presence of regulators and industry associations strengthens this relationship, indicating that effective governance requires a combination of internal corporate commitment and external institutional pressure. These findings hold practical implications for regulators, industry associations, and corporate management to foster stronger collaboration in accelerating the adoption of sustainability practices in Indonesia.

6. Theoretical, Practical, and Policy Implications

6.1. Theoretical Implications

This study enriches the literature on corporate governance and sustainability reporting through several contributions:

- First, the findings reaffirm the relevance of stakeholder theory [26] and legitimacy theory [28] in explaining why firms are motivated to enhance the Sustainability Reporting Disclosure Index (SRDI). Companies pursue legitimacy from both internal and external stakeholders through the adoption of sound governance principles.
- Second, the evidence regarding the role of regulators supports institutional theory [25], particularly coercive isomorphism, where regulatory pressures strengthen the relationship between governance and SRDI.

- Third, the role of industry associations broadens the understanding of normative isomorphism, whereby sustainability practices diffuse through norms, peer pressure, and benchmarking within industry communities.
- The novelty of this research lies in the simultaneous examination of ten governance principles, an area rarely addressed in previous studies and the integration of two external moderators (regulators and industry associations).

6.2. Practical Implications

- For Corporate Management: The results highlight that the comprehensive application of governance principles, ranging from transparency and accountability to integrity, enhances SRDI quality. Firms need to internalize these values into strategies, policies, and operational processes, rather than treating them merely as formal compliance.
- For investors and stakeholders: A higher SRDI reflects stronger sustainability commitment and governance, serving as an additional indicator in investment decision-making. Investors can utilize these findings to distinguish between companies at risk of greenwashing and those genuinely committed to ESG principles.
- For Industry Associations: Associations can strengthen their role in education, advocacy, and inter-firm collaboration to create more consistent sustainability practices within industries. Peer-learning mechanisms have proven effective in accelerating the adoption of reporting standards.

6.3. Policy Implications

- For regulators (OJK, IDX, Ministry of Environment): The results underscore the importance of strengthening sustainability reporting regulations. Policies should focus on the quality rather than the quantity of reporting, for example, by integrating external assurance for sustainability reports.
- Strengthening the Sustainable Finance Roadmap: The roadmap designed by OJK needs to emphasize transparency, independence, and corporate integrity as key levers for enhancing report credibility.
- Government Support: Fiscal and non-fiscal incentives (e.g., tax allowances for companies meeting certain ESG standards) can serve as additional catalysts.
- Regulator–Association Collaboration: Government and industry associations should collaborate in building an enabling ecosystem for sustainability adoption, for example, through public–private partnerships for capacity building in strategic industries.

The theoretical implications reaffirm the relevance of stakeholder, legitimacy, and institutional theories in the Indonesian context. The practical implications provide guidance for corporate managers, investors, and associations in strengthening their roles in advancing sustainability practices. The policy implications highlight the need for stronger regulation, regulator–association collaboration, and incentive support to accelerate the transition toward better governance and sustainability.

6.4. Original Theoretical Contributions

Based on the findings, this research provides several original theoretical contributions in the context of corporate governance, regulation, and sustainability reporting in Indonesia:

1. Integration of Governance Principles as Determinants of SRDI
The study demonstrates that the ten governance principles (transparency, accountability, fairness, responsibility, independence, shareholder empowerment, legal compliance, disclosure, integrity, and sustainability) function not only as internal control mechanisms but also as direct determinants of SRDI quality. Theoretically, this extends the understanding that governance principles are integral components of the sustainability governance framework.
2. The Role of Regulators and Associations as Institutional Moderators

The findings confirm and expand institutional theory by demonstrating that regulatory (coercive) and industry association (normative) pressures reinforce the governance–SRDI relationship. While institutional theory has primarily emphasized external legitimacy, this study introduces the dimension of synergy among institutional actors as a determinant of governance effectiveness.

3. **Formulation of the “Triple-Interaction Governance–Institutional–Disclosure” Model**
The research proposes a novel conceptual framework, “Triple-Interaction,” highlighting the simultaneous interlinkages among (i) corporate governance, (ii) external institutional influences, and (iii) sustainability reporting quality. This model advances theoretical integration between stakeholder theory and institutional theory, emphasizing that the effectiveness of governance in driving sustainability reporting depends on institutional ecosystem support.
4. **Repositioning Stakeholder Theory in Emerging Markets**
The study reveals that in emerging markets like Indonesia, regulators and industry associations act not only as stakeholder representatives but also as primary facilitators shaping corporate behavior. This enriches stakeholder theory by adding a new perspective: institutional stakeholders play dual roles as both “pressure agents” and “support enablers” in building sustainability legitimacy.

7. Original Contributions to the Literature

Theoretical contributions include:

- Testing the integration of ten governance principles as multidimensional predictors of SRDI.
- Developing a new conceptual framework that merges stakeholder and institutional theories within a single interaction model.
- Providing empirical evidence from a developing country, thereby expanding the generalizability of theories predominantly rooted in developed-country contexts.

Thus, this study not only generates practical implications but also strengthens the theoretical foundations of corporate governance and sustainability reporting research.

8. Directions for Future Research

Given the dynamic regulatory landscape and the increasing global demands for sustainability reporting, future studies may focus on:

- The influence of external assurance on SRDI credibility.
- Comparative studies of reporting practices between Indonesian firms and ASEAN peers.
- Longitudinal analysis of the impact of SRDI on firms’ financial and non-financial performance.

This study concludes that strong corporate governance, reinforced by regulators and industry associations, enhances the quality of sustainability reporting in Indonesia. The resulting practical, policy, and academic recommendations are expected to serve as a reference point for accelerating the transformation toward transparent, accountable, and sustainable governance.

9. Discussion

The results support *stakeholder theory*: firms adopt disclosure to satisfy stakeholders and gain legitimacy. Findings are consistent with Buchetti et al. [4] and Rivo-López et al. [3]. Regulators’ moderating role reflects institutional theory, where external enforcement enhances compliance [7]. Associations, though weaker, foster peer-driven harmonization [10].

Compared to developed markets, emerging market firms demonstrate symbolic compliance [7] but regulators accelerate substantive adoption. This highlights the dual importance of formal regulation and peer dynamics.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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