

INTEGRATING ESG INTO SUSTAINABLE HRM: DIRECTED CONTENT ANALYSIS OF INDONESIAN SUSTAINABILITY REPORTS

Hernanda Alfioni^{1*}, Riza Aryanto²
hernandaalfioni21@gmail.com^{*}
Sekolah Tinggi Manajemen PPM, Indonesia^{1,2}

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Abstract

The development of sustainability reporting in Indonesia currently does not guarantee the integration of ESG commitments into human resource management (HRM) systems. To address this issue, this study constructs and validates a new instrument to measure the maturity of ESG-HRM integration while mapping its primary gaps. The evaluation protocol assesses five domains of sustainability standards across 20 corporate sustainability reports using a double-coding scheme based on a structured codebook. Subsequently, the study employs nonparametric tests to compare the scores across domains before mapping corporate positions onto a four-quadrant matrix. The empirical results indicate that companies prioritize the disclosure of ESG commitments over their practical implementation within the HRM domain. Specifically, the scarcity of performance metrics and incentives triggers this critical integration gap. Meanwhile, governance and occupational safety disclosures display a relatively advanced level of maturity. Theoretically, these findings enrich the discourse on decoupling and institutional theories by localizing compliance gaps within a specific HR subsystem. Practically, this instrument provides a robust diagnostic tool for regulators and investors to distinguish substantive integration from administrative compliance, evaluating sustainability reporting quality and positioning remuneration system reform as the primary strategic lever.

Keywords: sustainability reporting quality, ESG integration, sustainable HRM, performance, reward alignment

*Correspondence Author



By Authors

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1. Introduction

The ESG framework has shifted from a specialized investment tool into a universal corporate accountability standard. Global sustainable investment

assets hit USD 16.7 trillion in 2024, representing 27% of all global capital after a 49% two-year surge (Global Sustainable Investment Alliance, 2024). Three forces drive this expansion. Institutional investors incorporate ESG criteria into risk analysis and capital allocation. Global regulators tighten disclosure mandates through frameworks such as the ISSB's IFRS S1 and S2 standards and the European Union's Corporate Sustainability Reporting Directive. Public pressure forces markets to require strategic integration over mere reporting documents (MacNeil & Esser, 2022; Zhou et al., 2025). This reporting surge does not guarantee parallel improvements in organizational practice. The literature defines this gap between formal commitment and operational conduct as decoupling (Brandl et al., 2022; Loko & Schiehl, 2025). Metrics-driven ESG systems generate structural risk. This vulnerability strains emerging-market firms whose compliance burdens outpace existing organizational capacity. This disclosure-practice paradox anchors this investigation.

Sustainable HRM literature positions the human resource function as the mechanism connecting external sustainability commitments to internal organizational decisions (Piwowar-Sulej, 2021; Ren et al., 2023). The HR department directly manages the social pillar of ESG, encompassing employee well-being, occupational health, diversity, equity, inclusion, and ethical practices (Mariappanadar, 2024; Stahl et al., 2020). Failing to embed these values into HR systems triggers decoupling risks, leaving corporate sustainability commitments superficial (Ren et al., 2023).

Human resource management evolved across three historical phases. Classical HRM pursued administrative efficiency during the 1970s and 1980s. Strategic HRM subsequently leveraged the Resource-Based View to frame human capability as a competitive advantage (Barney, 1991). Driven by high-performance work system burnout, the Triple Bottom Line, Stakeholder Theory, and global normative pressures, Sustainable HRM emerged as the third wave (Austen & Piwowar-Sulej, 2025; Elkington, 1997; Freeman, 1984; Mariappanadar, 2024). Ehnert (2009) frames this strategy as the simultaneous pursuit of long-term financial, social, and ecological targets that regenerates the firm's resource base. Wu et al. (2025) structure this architecture into four components: green practices, well-being, diversity/equity/inclusion, and ethical labor. Three pathways operationalize this concept. Green HRM anchors the environmental pillar, while Social HRM governs well-being, diversity, equity, inclusion, and ethical practices. Ethical HRM reinforces governance through compensation

transparency and HR accountability (Ren et al., 2023). (Table 1) maps these three pathways onto five instrument domains aligned with global reporting standards.

Table 1. Five Domains of the Indonesia ESG-HRM Scorecard and Mapping of Global Standards

Domain	Brief Definition	Reference Standard	Mechanistic Pathway
D1 Talent Acquisition & Development	Organizations recruit employees using sustainability competency criteria; companies develop employee capabilities to align with ESG targets; management manages leadership succession based on corporate values.	GRI 404	Green HRM and Social HRM
D2 Performance & Reward Alignment (<i>Keystone Domain</i>)	Integration of ESG targets into managerial KPIs; incentives that align remuneration with sustainability performance; evaluations based on ESG metrics.	SASB HC-101	Ethical HRM
D3 Well-being & K3	Safety management systems (ISO 45001); holistic health programs; workload management.	GRI 403	Social HRM
D4 Diversity, Equity & Inclusion	Gender/minority representation in leadership; fair and transparent compensation; inclusive and measurable programs.	GRI 405	Social HRM
D5 Governance & Disclosure	Sustainability governance (sustainability committee); quality of ESG reporting; board accountability.	GRI 2	Ethical HRM

Source: Synthesized from Piwowar-Sulej (2021), Stahl et al. (2020), and Wu et al. (2025), and mapped against GRI and SASB standards.

Indonesia's Financial Services Authority (OJK) mandates sustainability reporting for public companies through POJK 51/POJK.03/2017 and SEOJK 16/SEOJK.04/2021. This framework drove market compliance upward. The Indonesia Stock Exchange notes that 917 of 951 issuers, roughly 96%, submitted fiscal year 2024 reports (Bursa Efek Indonesia, 2025). These mandates dictate disclosure formats but leave internal work systems and executive compensation unaddressed. Institutional theory codes this pattern as coercive isomorphism (Anlesinya et al., 2023; DiMaggio & Powell, 1983; García-Cruz et al., 2025). Regulatory pressure forces legal compliance, while actual value internalization lags.

Sectoral data mirrors this disclosure-implementation gap. Jimmy & Munandar (2026) report that general GRI disclosure reached 55% among construction issuers between 2017 and 2021, yet material compliance hit only

35%. This deficit highlights a systemic focus on structural alignment over operational change. Directed content analysis of 20 fiscal year 2024 reports extends this dynamic to the HR domain. Nineteen sampled issuers scored zero in Performance and Reward Alignment, leaving PT Unilever Indonesia Tbk as the sole firm linking executive pay to sustainability metrics. Most issuers populate the Decoupling Risk zone of the 4-Quadrant ESG-HRM Positioning Matrix. Globally, Moreira et al. (2025) confirm a similar neglect of HR metrics, indicating that weak incentive alignment crosses geographic boundaries.

This study adopts Institutional Theory (DiMaggio & Powell, 1983) as its grand theory and treats Decoupling Theory (Brandl et al., 2022; Loko & Schiehl, 2025) as a middle-range theory nested within it, following the middle-range theorizing approach (Merton, 1967). Institutional theory explains how organizations adopt legitimated structures. Decoupling theory isolates a specific consequence of this process, namely the gap between formal policy and operational reality. Sustainable HRM provides the substantive domain to observe both theoretical layers instead of serving as a third independent pillar.

Institutional theory attributes organizational adoption of Sustainable HRM to three isomorphic mechanisms: coercive regulatory pressures, normative professional standards, and mimetic market imitation (DiMaggio & Powell, 1983). Coercive pressure yields formal compliance for legal legitimacy, whereas normative pressure fosters genuine value internalization (Anlesinya et al., 2023). Organizational engagement mediates these institutional forces. This mediation explains why uniform regulations produce divergent internal outcomes across firms (García-Cruz et al., 2025). Jiang (2026) documents a parallel trend across Asia, where state regulation spikes compliance but fails to deepen value internalization.

Decoupling theory builds directly on this isomorphic friction. Coercive pressure lacking normative support creates a structural gap between public disclosure and internal integration (Brandl et al., 2022; Loko & Schiehl, 2025). This intersection shapes the architecture of the Indonesia ESG-HRM Scorecard. Institutional theory predicts rapid, uniform adoption in regulated domains (D3 and D5) because coercive forces target visible subsystems. In contrast, implementation lags in domains dependent on voluntary managerial commitment (D1, D2, and D4). Decoupling theory justifies evaluating these clusters as distinct dimensions: ESG Disclosure Quality ($D3 + D5$) versus Sustainable HRM Integration ($D1 + D2 + D4$). Single aggregate scores mask

where formal compliance diverges from substantive practice. This explicit disaggregation forms the analytical core justified by both theories.

Agency theory frames Performance and Reward Alignment (D2) as the instrument's keystone domain (Jensen & Meckling, 1976). Managers prioritize metrics embedded directly in compensation and evaluation systems. Targets outside these structures lose urgency against financial indicators. This alignment connects ESG commitments to the economic signals governing executive action (Matemane et al., 2022). Without D2, companies merely generate disclosures across the remaining four domains. Quarterly earnings pressure forces executives to choose contractual metrics over unrewarded sustainability goals. This split isolates accountability within detached CSR units, locking ESG factors out of daily operational trade-offs. Written policies lacking explicit metrics inevitably produce organizational decoupling (Loko & Schiehl, 2025).

Implementation costs explain why companies favor disclosure over performance-linked incentives. Disclosure compliance requires a low-cost policy statement that leaves existing compensation structures untouched. In contrast, embedding ESG targets into remuneration demands contract renegotiation, appraisal redesigns, and board approval. These hurdles raise financial costs and internal political risks. Cohen et al. (2023) document this asymmetry directly. Globally, the share of firms linking executive pay to ESG metrics grew from 3% in 2010 to 38% in 2021, driven by efficient-contracting incentives and institutional investor pressure. Eliwa et al. (2025) analyze 36,055 firm-year observations across 40 countries, proving that ESG-linked compensation narrows decoupling. This impact strengthens when active CSR committees provide governance oversight. Indonesian issuers largely lack this oversight architecture. Local CSR committees remain weak, while current OJK regulations omit executive remuneration mandates. This regulatory gap explains the projected adoption deficit in D2 and anchors the operational mechanism for H2.

Three distinct streams organize the Sustainable HRM literature. Conceptual frameworks establish the core theoretical foundations (Piwovar-Sulej, 2021; Ren et al., 2023; Stahl et al., 2020). Quantitative empirical works test specific relationships within isolated settings. For instance, Faeni et al. (2025) map Green HRM pathways in Indonesia's aviation sector using PLS-SEM and fsQCA. Jorgji et al. (2024) evaluate ESG disclosure as a performance moderator, while Schleich (2022) correlates HR practices with ESG ratings in Brazil. Christina et al. (2025) deploy mixed methods to demonstrate a causal sustainability link in India.

Synthesizing these data points, a third stream applies bibliometric methods to consolidate the literature (Alrifae, 2026; Austen & Piwowar-Sulej, 2025; Sultana et al., 2026). (Table 2) contrasts five representative studies across method, scope, and findings. This matrix reveals that current research targets narrow sectors, single countries, or isolated mechanisms. No study combines a cross-sector sample with a domain-disaggregated measure of the actual disclosure-practice gap.

Table 2. Comparative Summary of Prior Quantitative Empirical Studies on Sustainable HRM-ESG Integration

Author (Year)	Method	Scope	Key Finding	Gap Relative to This Study
Faeni et al. (2025)	PLS-SEM and fsQCA	Aviation sector in Indonesia	The authors map the causal pathways of Green HRM integration.	The study limits its focus to a single sector, whereas the present research spans 20 issuers across three cross-sector risk bands.
Jorgji et al. (2024)	Moderation analysis	Firm-level analysis with ESG disclosure as a moderator	ESG disclosure moderates the link between human capital management and firm performance.	The analysis tests a performance outcome of disclosure instead of examining the actual gap between formal disclosure and workplace practice.
Schleich (2022)	Perceptual survey and correlational analysis	Brazil	The study correlates HR practices with the ESG ratings of firms.	Perceptual self-report data cannot verify whether firms actually implement these reported practices.
Christina et al. (2025)	Mixed-methods	India	The paper demonstrates the causal impact of Sustainable HRM on corporate sustainability.	This aggregate-level causal claim does not disaggregate the specific HR subdomains that drive the overall effect.
García-Cruz et al. (2025)	Perceptual survey and mediation analysis	Firm-level institutional pressure diffusion	Organizational engagement mediates the effect of institutional pressure on SHRM implementation.	The research shares the same self-report limitation as Schleich (2022) because the model explains the underlying mechanism rather than the exact magnitude of the gap.

Source: Synthesized and processed by the authors (2026)

Existing literature yields three consensus points and one core contradiction. Bundled Sustainable HRM practices produce more consistent outcomes than isolated interventions (Piwowar-Sulej, 2021; Sultana et al., 2026). Similarly, coercive institutional pressure drives formal ESG adoption without internalizing values (Anlesinya et al., 2023; García-Cruz et al., 2025; Loko & Schiehl, 2025). Mainstream frameworks also underrepresent the HRM dimension (Austen & Piwowar-Sulej, 2025; Moreira et al., 2025). In contrast, Alrifae (2026) and Sultana et al. (2026) clash over green reward effectiveness. Faeni et al. (2025) note that this debate remains untested within Indonesian executive compensation. This contradiction, alongside the lack of cross-domain measurement instruments (Martínez et al., 2026; Torres et al., 2023), anchors this study's focus.

The Indonesia ESG-HRM Scorecard alters corporate evaluation through three architectural shifts. It disaggregates HRM integration into five theoretically anchored domains, countering the mainstream neglect of human capital (Moreira et al., 2025). Independent document coding replaces corporate self-reports to eliminate social desirability bias (García-Cruz et al., 2025; Schleich, 2022). Finally, relying solely on public data enables full replication without proprietary subscription fees.

These features provide actionable utility across the financial ecosystem. Regulators like OJK and the Indonesia Stock Exchange can isolate weak HR subsystems rather than tracking flat aggregate compliance. For sustainability auditors, this evidence hierarchy separates formal policy statements from verified implementation. Institutional investors can deploy the disaggregated domain scores during due diligence to separate substantive integration from mere compliance camouflage.

Two testable predictions emerge from these theoretical arguments. Institutional theory suggests that Indonesian issuers achieve higher maturity in regulated domains (D3, D5) than in voluntary ones (D1, D2, D4). This variance occurs because coercive isomorphism targets subsystems that external monitors observe directly (DiMaggio & Powell, 1983). Cost dynamics strengthen this prediction. Disclosure compliance requires simple, low-cost policy statements. Conversely, practical ESG-HRM integration demands contract renegotiation, appraisal redesigns, and formal board approvals (Cohen et al., 2023).

H1: The ESG Disclosure Quality Score ($D3 + D5$) significantly exceeds the Sustainable HRM Integration Score ($D1 + D2 + D4$) in publicly listed Indonesian companies, signaling a systemic decoupling phenomenon.

Agency theory predicts minimal adoption in the Performance and Reward Alignment domain ($D2$), as managers prioritize compensation-embedded metrics over unrewarded ESG targets (Jensen & Meckling, 1976; Matemane et al., 2022). Indonesian issuers lack the active CSR committees that mitigate decoupling internationally (Eliwa et al., 2025). OJK regulations compound this structural deficit by omitting executive remuneration mandates. This lack of internal and external pressure underpins the second hypothesis.

H2: The Performance and Reward Alignment domain ($D2$) records the lowest adoption rate among the five ESG-HRM domains, marking it as a keystone area that current regulations and governance structures overlook.

Testing these hypotheses clarifies the framework's utility. H1 establishes construct validity by capturing empirical patterns that match theoretical decoupling predictions. H2 maps domain specificity within that broader architecture. These theoretical gaps and the practical gap identified in the Indonesian regulatory context translate into three research questions: (RQ1) what level of ESG integration maturity do Indonesian issuers exhibit within their Sustainable HRM systems, and which domain contains the most critical gaps?; (RQ2) how do researchers develop the Indonesia ESG-HRM Scorecard as a valid and reliable measurement instrument?; (RQ3) which domain exhibits the most systemic gaps, and how does the 4-Quadrant ESG-HRM Positioning Matrix map the comparative positions of companies? In line with these questions, this study aims to: (1) analyze cross-sector ESG integration maturity; (2) develop and validate the Indonesia ESG-HRM Scorecard; and (3) map the comparative positions of companies to detect their systemic gaps.

Figure 1 maps the five-stage conceptual framework. OJK regulations and IFRS S1/S2 standards drive external institutional pressure, triggering corporate responses. Coercive, normative, or mimetic isomorphic mechanisms determine whether these responses produce genuine value internalization or mere symbolic compliance. To separate formal reporting from verified implementation, the Indonesia ESG-HRM Scorecard evaluates corporate policy across five domains.

This evaluation generates two diagnostic outputs: the ESG-HRM Readiness Ladder and the 4-Quadrant ESG-HRM Positioning Matrix. These models clarify whether an organization builds actual ESG value or faces decoupling risks. The next section details the methodology behind this framework.

Figure 1. Operational Conceptual Framework of the Indonesia ESG-HRM Scorecard: Antecedents, Diagnostic Dimensions, and Strategic Outcomes



Source: Synthesis from DiMaggio & Powell (1983); Stahl et al. (2020); Piwovar-Sulej (2021); Loko & Schiehl (2025); Torres et al. (2023).

2. Research Method

Research Design

This study adopts an Instrument Development Research design based on Churchill (1979) and Lawshe (1975). A directed content analysis approach (Hsieh & Shannon, 2005) operationalizes this framework, supported by four distinct rationales. Developing and validating the new tool directly answers RQ2. Conceptually, deductively extracting five domains from Sustainable HRM theory satisfies the core prerequisite for directed content analysis. The design uses hypothesis testing purely as a validity check rather than an ultimate endpoint. Within this setup, H1 and H2 confirm whether the instrument captures empirical patterns matching theoretical predictions. Crucially, analyzing public corporate documents mitigates two weaknesses inherent to perception surveys: social desirability bias and the inability to detect decoupling through verifiable evidence.

Population, Sample, and Unit of Analysis

The study draws its population from the 917 IDX issuers that published fiscal year 2024 sustainability reports (Bursa Efek Indonesia, 2025). Purposive

sampling narrowed an initial pool of 50 candidates down to a final sample of 20 issuers. Three inclusion criteria guided this selection: public accessibility, HR content spanning at least two target domains, and cross-sector representation. The final matrix spans three distinct risk bands: high-risk (energy, mining, construction), medium-risk (manufacturing, FMCG, pharmaceuticals), and service-technology (banking, telecommunications, healthcare). This multi-sector configuration isolates industry-wide trends, diverging from the single-sector focus used by Faeni et al. (2025)

The information power framework justifies this sample size over traditional theoretical saturation (Malterud et al., 2016). Saturation primarily serves inductive interview designs; applying it to document analysis often introduces methodological inconsistencies (Wutich et al., 2024). The information power model evaluates adequacy through five distinct attributes. The study's narrow goal of validating an instrument rather than building novel theory reduces sample size demands. High target specificity among large issuers guarantees data-rich HR disclosures. Concurrently, anchoring the coding framework in GRI, SASB, and institutional theory narrows the analytical scope. The analysis strategy also shifts focus from single-case interpretation to cross-case pattern verification, lowering the necessary case count. Crucially, audited sustainability reports possess immense textual density. This layout yields significantly more codable material per document than typical interview transcripts, satisfying the dialogue-quality benchmark (Malterud et al., 2016).

Instrument Development Procedure

The construction of the Indonesia ESG-HRM Scorecard follows a three-stage development process spanning domain specification, item generation, and purification (Churchill, 1979). Deductively deriving these domains from theory replaces exploratory item pooling during the specification phase. Green, Social, and Ethical HRM constitute the core pathways linking human resources to sustainability. As mapped in (Table 1), each domain aligns a specific pathway with a global reporting standard. Content-validity logic dictates this dual-anchoring method, meaning a candidate domain enters the scorecard only when it satisfies both sustainable HRM theory and

international disclosure mandates (Lawshe, 1975). This baseline constraint isolates exactly five valid domains, eliminating single-source constructs.

Item generation operationalizes the definitional criteria from (Table 1) into the four-level ordinal evidence scale shown in (Table 3), applying directed content analysis principles (Hsieh & Shannon, 2005). Every score level embeds a unique decision rule and an anchor example. This setup explicitly separates surface-level policy statements from verified execution. The scale advances sequentially from non-disclosure, through policy presence and process tracking, to strict metric discipline. To prevent arbitrary scoring, an issuer's report must satisfy all cumulative criteria of a lower tier before qualifying for a higher score level.

Purification refines this initial codebook through pilot coding on a subsample of the reports. During the pilot consensus discussions, the co-author reviewed the codebook alongside the first author, and this review addressed three elements: the relevance of each domain to the evidence the pilot reports contained, the clarity of indicator wording at each score level, and the discriminability between adjacent score levels, in particular the boundary between a policy statement (score 1) and documented process evidence (score 2). This pilot stage functioned as the expert judgement step in the instrument's development, and the authors incorporated the resulting wording adjustments into the codebook before independent double-coding of all 20 sampled reports began. This review represents an internal researchers review conducted by the first author and one co-author and does not constitute validation by an independent external panel. The study states this boundary explicitly, so that readers do not overstate the procedure's methodological weight, and it recommends that future replications recruit an independent panel of Sustainable HRM or ESG assurance practitioners to extend this validation step.

Operationalization of Variables and Instruments

Table 3. ESG-Sustainable HRM Evidence Assessment Codebook (Per Domain)

Score	Category	Evidence Criteria	Indicator Examples
0	No Evidence	No relevant evidence can be identified within the document.	No HR or sustainability narrative exists within the corresponding domain.

Score	Category	Evidence Criteria	Indicator Examples
1	Policy Presence	A policy statement or normative commitment is available, but it lacks verified evidence of implementation.	"We are committed to diversity" without specific data or targeted programs.
2	Process Evidence	Evidence of an implementation program is present and identifiable, but it lacks explicit KPIs or quantitative targets.	An ESG training program is executed without specifying the number of participants or competency targets.
3	Metric Discipline	Systemic implementation is established with quantitative indicators, explicit targets, regular monitoring, and a direct link to performance or incentive systems.	Sustainability KPIs are integrated into senior managers' performance agreements; LTIFR features YoY targets; a DEI program targets 30% female representation within 3 years.

Source: Constructed by the authors

The scoring protocol follows three decision rules. The protocol awards points only for explicit and verified evidence found in the report text. A general narrative statement that lacks supporting data receives a score of 1, regardless of its phrasing. Each progressively higher score requires the report to fulfill every criterion of the score level below it, and a report cannot skip a level.

The study aggregates each issuer's scores across domains D1 through D5, producing a total score that ranges from 0 to 15, and this total score determines the issuer's position on the five-level ESG-HRM Readiness Ladder: Compliance-driven (0-3), Structured Compliance (4-6), Transitional (7-9), Strategic Alignment (10-12), and ESG Maturity Level (13-15). To test H1, the analysis compares two equally weighted composite dimensions, each scored from 0 to 6: ESG Disclosure Quality ($D3 + D5$) and Sustainable HRM Integration ($D1 + D2 + D4$, scaled by $2/3$ to match the 0-6 range of the disclosure composite). To test H2, the study applies the Friedman test to the score distribution across the five domains.

Data Collection Procedure and Reliability Testing

Reports serve as the sampling units, whereas individual HR-related statements or paragraphs constitute the coding units. The framework applies deductive directed content analysis principles, mapping each coding unit onto five predetermined domains rather than generating inductive categories (Hsieh & Shannon, 2005). Although this methodology mandates an inductive

check for outlier data, tracking the 20-document sample yielded no new subcategories beyond the initial theoretical design (Hsieh & Shannon, 2005).

Four operational stages establish protocol credibility. Deductive development first yields a codebook embedding explicit decision rules alongside positive and negative anchor examples, finalized through evaluator consensus. Next, independent pilot coding of six documents, representing 30% of the sample, isolates and resolves interpretive ambiguities before full execution. Both evaluators then coded all 20 documents independently without cross-communication. To resolve subsequent scoring discrepancies, the evaluators matched text segments against explicit codebook parameters instead of engaging in unstructured debate. This reconciliation process generated a page-referenced audit trail for every entry. Table 4 demonstrates this coding logic using the domain D2 assessment for PT Unilever Indonesia Tbk.

Table 4. Illustrative Application of the Codebook: PT Unilever Indonesia Tbk (UNVR), Domain D2

Coded Statement	Domain	Score	Decision Rule Applied
UNVR embeds sustainability targets into business-unit directors' KPIs and extends accountability across all organizational levels through routine performance evaluations and monitored individual development plans (pp. 117, 126, 259).	D2: Performance & Reward Alignment	2: Process Evidence	The report outlines a page-referenced implementation program linking sustainability targets to managerial KPIs. However, the disclosure omits quantitative target figures and direct links to remuneration or incentive systems. (Table 3) requires these specific elements for Score 3.

Data source: Processed data, audit trail pp. 117, 126, 259

Initial raw agreement reached 71%, matching an aggregate Cohen's kappa of 0.489. This score indicates moderate reliability under standard statistical benchmarks (Landis & Koch, 1977). However, this aggregate value understates actual domain-level consistency due to the kappa paradox. This artifact routinely depresses kappa scores when high raw agreement coincides with extreme category skew (Byrt et al., 1993; Feinstein & Cicchetti, 1990). Domain D2 illustrates this inflation. Table 8 reveals that 95% of sampled issuers scored 0 in this domain. Corporate reports compound this imbalance by embedding remuneration data within broad governance narratives rather than explicit statements, leaving coders narrow opportunities to disagree. The

0.489 score reflects this marginal skew as much as coder alignment. In contrast, balanced domains like D3 and D5 would likely yield higher disaggregated metrics.

Data tracking constraints prevent the recomputation of domain-disaggregated kappa values because the team preserved raw sheets only for reconciliation. This structural omission stands as an explicit methodological limitation. Three procedural safeguards mitigate this gap. The 30% pilot coding stage aligned evaluator interpretations before full-sample execution. Concurrently, independent double-coding of all 20 documents prevented anchoring bias between evaluators. Structured reconciliation against explicit decision rules also forced every disagreement into a traceable, page-referenced resolution. While these safeguards protect practical coding consistency, they do not replace a direct domain-level kappa. Future replications must archive raw coding sheets to permit full statistical decomposition.

Data Analysis Techniques

Three operational phases structure the analysis: instrument construction against global standards (Global Reporting Initiative, 2021; Sustainability Accounting Standards Board, 2018), inter-rater reliability testing, and empirical application across the 20 sampled documents. This final application tests H1 and H2, mapping issuer performance onto the 4-Quadrant ESG-HRM Positioning Matrix. Specific data characteristics dictate the choice of nonparametric methods over parametric alternatives. First, the scorecard yields an ordinal-composite measure with unequal numerical spacing between codebook levels, violating the equal-interval assumption required by paired t-tests or repeated-measures ANOVA. Second, the small sample size of 20 issuers precludes reliance on asymptotic normality. Although a Shapiro-Wilk test on H1 difference scores indicates a normal distribution ($W = 0.932$, $p = 0.171$; Table 9), this single finding does not alter the methodological strategy. The ordinal scale itself, rather than the empirical distribution shape, determines the appropriate test.

Because both hypotheses evaluate related-samples data from the same 20 issuers, the analysis requires tests comparing matched observations instead of independent groups. Accordingly, the methodology applies the Wilcoxon signed-rank test for the two related conditions in H1 and the Friedman test for the five conditions in H2 (Friedman, 1937; Wilcoxon, 1945). These options

evaluate rank-based differences rather than means, preserving statistical validity within small samples without requiring large-sample corrections. Furthermore, both tests operate without distributional assumptions beyond ordinal rankings. This mathematical design fits the exact output of the scorecard, whereas parametric alternatives require equal-interval data that this ordinal instrument cannot generate.

3. Result and Discussion

Validation of the Indonesia ESG-HRM Scorecard

This study evaluates the Indonesia ESG-HRM Scorecard through content, construct, and face validity parameters. Because the lack of an external gold standard precludes direct comparison, construct validity serves as the primary baseline (Cronbach & Meehl, 1955). Content validity was established through deductive derivation, anchoring each domain in sustainable HRM literature (Piwowar-Sulej, 2021; Wu et al., 2025) and global disclosure frameworks (Table 1) satisfies the dual-anchoring principle (Lawshe, 1975). Nomological validation further supports construct accuracy (Churchill, 1979). Here, the empirical hierarchy places domains D5 and D3 highest, D4 and D1 at moderate maturity, and D2 lowest. This pattern matches institutional theory, which predicts that regulated, metric-explicit areas mature faster than domains dependent on voluntary managerial commitment. Conversely, because the coding units comprise corporate disclosures instead of human respondents, the analysis bypasses practitioner-focused face validity checks (Nevo, 1985). Future research should incorporate practitioner feedback before the instrument is adapted for organizational self-assessment. Inter-rater testing confirms moderate agreement, with 71% initial alignment and a Cohen's κ of 0.489; agreement was anchored by a detailed codebook and paragraph-level audit trails.

Mapping ESG Integration into Five Domains of Sustainable HRM

Directed content analysis reveals distinct integration patterns across the five domains (Table 5). Domains with higher regulatory standardization show

correspondingly deeper integration, consistent with regulatory-driven coercive isomorphism.

Table 5. Gap Analysis: Summary of Findings per ESG-Sustainable HRM Domain

Domain	Key Findings	Adoption Rate	Status	Strategic Implications
D5: Governance & Disclosure	Most assessed reports align closely with GRI, SASB, and POJK standards, as the majority of issuers maintain sustainability committees and certified documents.	≥ 2 at 85-100%	Strong	This established baseline requires companies to deepen accountability by shifting focus from basic disclosure toward real-time corporate governance.
D3: Well-being & OHS	Energy and mining issuers consistently track quantitative metrics like LTIFR and TRIR, while service sector entities introduce initial holistic well-being programs.	≥2 at 90%	Strong	Conventional OHS success does not guarantee holistic employee well-being, which obligates organizations to expand initiatives beyond basic safety metrics.
D4: Diversity, Equity & Inclusion	Issuers publish predominantly descriptive gender reporting, present very limited measurable representation targets, and omit inclusion initiatives for disabled or multi-generational workforces.	≥1 at 70%; = 3 at 15%	Moderate	Issuers risk reducing DEI to a hollow checkbox exercise, meaning that genuine organizational transformation requires binding targets and active monitoring systems.
D1: Talent & Development	Corporate training programs vary widely, fail to build strong ESG-specific capabilities, and rarely target explicit sustainability competencies.	≥ 2 at 70%	Moderate	The primary strategic gap involves poor ESG framing, given that active training initiatives fail to establish measurable sustainability capabilities.
D2: Performance & Reward Alignment	Almost no corporate reports show evidence of ESG-linked KPIs or incentives; UNVR alone yields a score of D2=2, whereas 19 of 20 companies record a zero score.	= 0 at 95%; = 2 at 5%	Critical	This absence represents the largest missing link in the data because omitting D2 prevents other operational domains from changing managerial decision-making behaviour.

Data source: Processed data

The resource-based view helps explain this hierarchy. D3 (Well-being & OHS) and D5 (Governance & Disclosure) build on organizational infrastructure that already exists independently of ESG, since Indonesian labor

law requires occupational safety management outside sustainability reporting and domestic firms adopted board-level committees before POJK 51/2017 took effect. Maturity in these two domains therefore reflects the redeployment of existing capability rather than the construction of new capability. D2, in contrast, requires a functional link between sustainability metrics, HR appraisal systems, and board-approved remuneration policies, a link that most domestic governance structures do not yet provide and that spans three organizational functions that rarely coordinate. This explains why D2 lags behind D1 and D4: HR departments can launch talent development and DEI programs without board approval, while D2 requires alignment at the board level.

Institutional theory helps explain this asymmetry at a deeper level. Organizations facing external legitimacy pressure often maintain formal structures that satisfy public demand while preserving operational flexibility; this keeps policies, committees, and disclosures separate from the technical core (Meyer & Rowan, 1977). Sustainability committees and governance disclosures (D5) exemplify this visible, low-cost structure, whereas changing the technical core of evaluation and reward (D2) disrupts existing authority among HR, finance, and the board. Limited HR absorptive capacity compounds this gap in emerging-market firms, since global ESG frameworks often exceed domestic HR capability. The D1 findings illustrate this constraint directly: corporate training programs vary widely and rarely target explicit sustainability competencies (Table 5), limiting HR departments' capacity to operationalize ESG-linked performance criteria even when leadership intends to do so. Indonesian issuers also generally lack a cross-functional mechanism that connects HR appraisal design with board-level remuneration decisions. This structural separation limits the organization's capacity to translate ESG commitment into an operational incentive, regardless of the strength of its sustainability culture.

Because incentive systems shape managerial behavior, short-term financial pressure reduces managers' motivation to prioritize long-term sustainability (Matemane et al., 2022). This keeps the ESG agenda confined to standalone sustainability units and reduces executives' financial accountability for gaps in implementation. This asymmetry carries a direct implication for report users. Because D5 measures disclosure infrastructure rather than underlying practice, a high D5 or D3 score signals reporting

sophistication rather than a change in managerial practice; a reader who relies on the aggregate score alone therefore risks overstating actual ESG-HRM integration. Nineteen of the 20 sampled issuers combine a high D5 score with a low D2 score, supporting the use of a domain-disaggregated instrument over a single aggregate score.

Testing H1 and H2: Confirming Systemic Decoupling

Table 6. Paired Data for Testing H1

Issuer	Disclosure (D3+D5)	Integration (D1+D2+D4) × 2/3	Difference (D-I)
ADHI	4	1.33	+2.67
GOTO	5	3.33	+1.67
PPLN	4	2.00	+2.00
BCA	5	2.67	+2.33
Astra	5	3.33	+1.67
ANTAM	4	2.00	+2.00
PGE	4	2.00	+2.00
KLBF	4	2.67	+1.33
ICBP	4	2.00	+2.00
GGRM	4	1.33	+2.67
GAR	4	2.00	+2.00
Silo	5	2.67	+2.33
UNVR	6	5.33	+0.67
PIPA	2	0.67	+1.33
BUDI	4	1.33	+2.67
DGNS	3	1.33	+1.67
MBTO	2	1.33	+0.67
FMII	2	0.67	+1.33
PLIN	2	0.67	+1.33
TLKM	5	2.67	+2.33
$\bar{x}$	3.90	2.07	+1.83

Data source: Processed data

(Table 6) shows a positive difference for every issuer, since the disclosure score consistently exceeds the integration score. The Wilcoxon signed-rank test yields $W^+ = 210$, $W^- = 0$, and $T = 0$; because this T value falls below the critical threshold ($T = 52$, $n = 20$, $\alpha = 0.05$), the study rejects H_0 ($p < 0.001$) and accepts H_1 . The Friedman test detects significant variance across the five domains ($\chi^2 = 68.7$, $p < 0.001$). with mean scores ranked as D5 (2.05), D3 (1.85), D1 (1.70), D4 (1.30), and D2 (0.10). Post-hoc tests show that D2 differs significantly from the other four domains ($p < 0.001$), supporting H_2 .

This pattern is consistent with Decoupling Theory (Loko & Schiehl, 2025) and with the coercive isomorphism described in Institutional Theory (Anlesinya et al., 2023; DiMaggio & Powell, 1983). External regulation drives formal ESG adoption in Indonesia while leaving domains outside direct regulatory reach, such as D2, largely unaddressed. These results indicate that the Indonesia ESG-HRM Scorecard tracks the theoretical expectations underlying its design.

Critical Analysis of D2 as a Keystone Domain

D2 connects directly to the other four domains. Even when D1, D3, D4, and D5 produce clear policies and disclosures, middle managers still face a conflict between ESG targets and short-term financial goals. The absence of D2 KPIs removes the incentive signal needed to resolve that conflict (Matemane et al., 2022). PT Unilever Indonesia Tbk (UNVR) is the only issuer in the sample that reaches a D2 score of 2 (Process Evidence). Although UNVR has not yet reached full Metric Discipline, its report provides clear evidence of ESG-linked performance management. This outcome traces to capability transfer from its global parent, which built this capability over a decade, moving from the Unilever Sustainable Living Plan and Unilever Compass to the Growth Action Plan (GAP); the GAP had already superseded the Compass framework by fiscal year 2024 (pp. 40, 70). This long-term commitment suggests that internal normative isomorphism can outweigh the coercive pressure of local regulation, consistent with argument by Jorgji et al. (2024), that global networks accelerate normative isomorphism. The D2 findings also speak to the debate between Sultana et al. (2026) and Alrifae (2026) on the effectiveness of green reward systems. This debate carries less weight when companies have not yet implemented such rewards in practice; in the Indonesian context, companies need to build D2 infrastructure before researchers can meaningfully evaluate its impact.

Maturity Level Distribution: ESG-HRM Readiness Ladder

Table 7. Distribution of ESG-Sustainable HRM Maturity Levels (Readiness Ladder)

Maturity Level	Score	Amount	Percentage	Issuer
ESG Maturity Level	13-15	1	5%	UNVR
Strategic Alignment	10-12	2	10%	GOTO, Astra

Maturity Level	Score	Amount	Percentage	Issuer
Transitional	7–9	9	45%	PPLN, BCA, ANTAM, PGE, KLBF, ICBP, GAR, Silo, TLKM
Structured Compliance	4–6	5	25%	ADHI, GGRM, BUDI, DGNS, MBTO
Compliance-driven	0–3	3	15%	PIPA, FMII, PLIN
Total		20	100%	

Data source: Processed data

Nine issuers, or 45% of the sample, sit at the Transitional level (Table 7). These issuers clear the minimum compliance threshold but have not reached strategic integration: management in this group reports ESG metrics adequately but rarely translates these metrics into strategic HR decisions. This makes the Transitional level a critical pivot point for corporate development and supports the framework proposed by Torres et al. (2023). Issuers need a minimum score of 2 in D3 and D5 to reach the Strategic Alignment level, since these two domains provide the baseline infrastructure for the more complex capabilities required in D1, D4, and D2. An issuer's specific position on the readiness ladder can therefore indicate the type of regulatory support it needs. The quadrant analysis below shows that a high aggregate score does not guarantee equal progress across all integration domains.

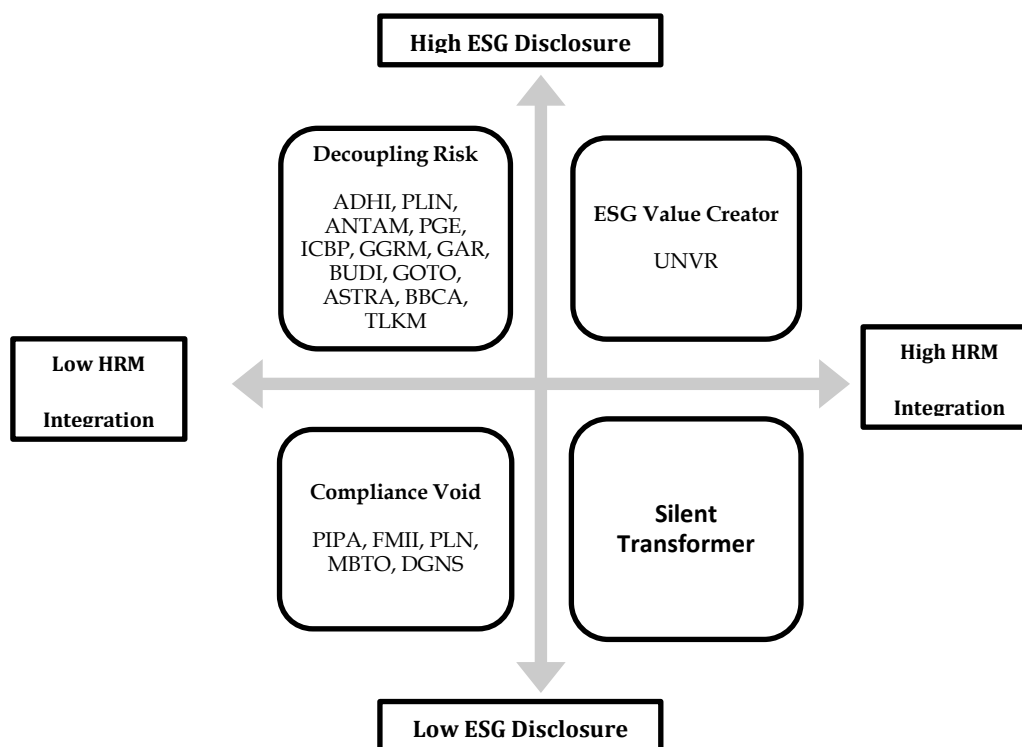
Quadrant ESG-HRM Positioning Matrix: Comparative Mapping

The matrix plots the combined D3 and D5 score on the x-axis and the scaled D1, D2, and D4 composite on the y-axis, using a 2/3 multiplier to align it with the 0–6 disclosure scale, so that a score of 4 carries the same meaning on both axes. The intersection of the two axes creates four quadrants (Figure 2). Quadrant 1 (Compliance Void) contains issuers with weak reporting and weak internal practice; Quadrant 2 (Decoupling Risk) contains issuers with high disclosure but weak internal integration. Quadrant 3 (Silent Transformer) contains issuers with strong internal practice but limited disclosure, while Quadrant 4 (ESG Value Creator) contains issuers that balance both dimensions (Figure 2).

Fourteen issuers fall into Quadrant 2 (ADHI, PPLN, ANTAM, PGE, ICBP, GGRM, GAR, BUDI, GOTO, BCA, Astra, KLBF, Silo, and TLKM). Five

issuers fall into Quadrant 1 (PIPA, FMIL, PLIN, MBTO, and DGNS). No issuer falls into Quadrant 3, and UNVR is the only issuer in Quadrant 4.

Figure 2. Quadrant ESG-HRM Positioning Matrix



Source: Processed data

The concentration in Quadrant 2 includes issuers that already hold a relatively high position on the readiness ladder. GOTO and Astra, for instance, sit at the Strategic Alignment level (score 10–12) on the aggregate ladder, yet both fall into the Decoupling Risk quadrant once the model benchmarks their integration score against the disclosure standard. This divergence indicates that an issuer can accumulate points across several categories while under-developing the specific capabilities that D1, D2, and D4 require. This is why a single aggregate score, as reported in (Table 7), can overlook a meaningful internal gap. The absence of any issuer in Quadrant 3 is consistent with strong coercive isomorphism, since no issuer in the sample builds internal HR integration ahead of a public reporting baseline. UNVR's isolated position in Quadrant 4 illustrates the alternative path: the transfer of the parent company's sustainability architecture provides an operational advantage that

local regulatory pressure alone has not yet produced among the other 19 issuers.

(Table 8) shows that 19 of the 20 issuers (95%) score zero on D2, the most severe deficiency recorded across all five domains. Only GOTO and Astra approach the Quadrant 4 threshold, each scoring 3.33 against the required 4, yet both still fall short. This suggests that progress in D1 and D4 cannot substitute for a missing D2.

Table 8. Presents the complete domain-level scores for all 20 sampled issuers (2024 Sustainability Report)

No	Issuer	D1 Talent	D2 Perf.	D3 Well-being	D4 DEI	D5 Gov.	Total Score	Maturity Level	Quadrant
1	ADHI	1	0	2	1	2	6	Structured Compliance	2
2	GOTO	3	0	2	2	3	10	Strategic Alignment	2
3	PPLN	2	0	2	1	2	7	Transitional	2
4	BCA	2	0	2	2	3	9	Transitional	2
5	Astra	3	0	2	2	3	10	Strategic Alignment	2
6	ANTAM	2	0	2	1	2	7	Transitional	2
7	PGE	2	0	2	1	2	7	Transitional	2
8	KLBF	2	0	2	2	2	8	Transitional	2
9	ICBP	2	0	2	1	2	7	Transitional	2
10	GGRM	1	0	2	1	2	6	Structured Compliance	2
11	GAR	2	0	2	1	2	7	Transitional	2
12	Silo	2	0	3	2	2	9	Transitional	2
13	UNVR	3	2	3	3	3	14	ESG Maturity Level	4
14	PIPA	1	0	1	0	1	3	Compliance-driven	1
15	BUDI	1	0	2	1	2	6	Structured Compliance	2
16	DGNS	1	0	1	1	2	5	Structured Compliance	1
17	MBTO	1	0	1	1	1	4	Structured Compliance	1
18	FMII	1	0	1	0	1	3	Compliance-driven	1
19	PLIN	0	0	1	1	1	3	Compliance-driven	1
20	TLKM	2	0	2	2	3	9	Transitional	2

No	Issuer	D1 Talent	D2 Perf.	D3 Well-being	D4 DEI	D5 Gov.	Total Score	Maturity Level	Quadrant
	$\bar{x}$	1.70	0.10	1.85	1.30	2.05	7.00		

Data source: Processed data

Robustness and Sensitivity Analysis

Three supplementary checks test the stability of the main conclusions. A weight-sensitivity check reruns the H1 comparison without the 2/3 scaling applied to the Integration composite. Even after excluding four tied pairs (GOTO, Astra, KLBF, and MBTO), the Wilcoxon signed-rank test still yields a significant effect with a large effect size; this indicates that the weighting scheme does not drive the H1 result. UNVR is the only issuer whose raw Integration score (8) exceeds its raw Disclosure score (6), a gap that shows why the two raw scales are not directly comparable (Table 9).

Table 9. Summary of Robustness and Sensitivity Checks

Check	Test	Statistic	p	Effect Size	Conclusion
Normality of H_1 differences	Shapiro-Wilk	$W = 0.932$	0.171	N/A	Supports normality; ordinal properties independently justify nonparametric tests
Weight sensitivity	Wilcoxon (unscaled)	$W = 14.5$	0.004	$r = 0.70$ (large)	Confirms H_1 robustness against weighting schemes
Sector robustness	Kruskal-Wallis	$H(2) = 2.001$	0.368	N/A	Reveals no sector effect; decoupling pattern generalizes across risk bands

Data source: Processed data

A Kruskal-Wallis test compares total maturity scores across three sector cohorts: high-risk (ADHI, ANTAM, PGE, PPLN), medium-risk (KLBF, ICBP, GGRM, UNVR, BUDI, MBTO, GAR, Astra, PIPA), and services/technology (GOTO, BCA, TLKM, Silo, DGNS). The test detects no significant sector effect. This suggests that the decoupling pattern reflects a broad, cross-sector regulatory dynamic rather than an industry-specific artifact. The study excludes FMII and PLIN from this comparison because their property business does not fit any predefined risk band. Time constraints prevented the inclusion of a third independent coder in this revision; future validation studies should add a blind evaluator to test the robustness of domain-level agreement. These findings apply specifically to Indonesia's principle-based disclosure regime under POJK 51/POJK.03/2017 and SEOJK

16/SEOJK.04/2021. A prescriptive framework such as the European Union's CSRD exerts a different form of coercive pressure and is likely to produce a different decoupling profile. The decoupling pattern reported here should therefore be read as a feature of this specific regulatory configuration rather than as evidence generalizable to jurisdictions with different enforcement mechanisms.

4. Conclusion

Most sampled IDX issuers decouple ESG disclosure from strategic HR execution, prioritizing administrative compliance over structural transformation. The near-universal omission of the Performance and Reward Alignment domain forms the central finding, demonstrating that formal ESG commitments fail to shift managerial behavior unless firms embed sustainability targets directly within incentive and appraisal systems. By operationalizing sustainable HRM pathways into a replicable matrix, this study extends decoupling theory, localizing the compliance gap within a specific HR subsystem instead of analyzing firm-level aggregates. Practically, the scorecard provides OJK with a framework to tighten KPI disclosure mandates, gives companies a roadmap for sequencing investments, helps remuneration committees pilot ESG-linked incentives, and equips auditors and investors with an evidence hierarchy to expose compliance camouflage. Specific boundaries constrain these conclusions. The purposive sample of 20 issuers covers a single reporting year (2024) and relies on disclosed text rather than verified field operations. This domestic, principle-based regime restricts generalization to non-reporting firms, alternate fiscal years, or prescriptive jurisdictions operating under the EU Corporate Sustainability Reporting Directive (CSRD).

Future studies can extend these boundaries in several ways. Quasi-experimental or difference-in-differences designs can test whether regulatory mandates shift executive incentive practices. Process tracing and internal interviews can distinguish an unexecuted policy from an unrecorded practice. Longitudinal tracking can clarify whether performance-reward integration matures over time or remains stagnant, while single-sector applications can isolate adoption patterns that a cross-sector sample tends to obscure. Quantitative approaches such as PLS-SEM or panel regression can test the relationship between these domain scores and financial performance or ESG ratings, while a regional Qualitative Comparative Analysis can examine how

differing regulatory architectures shape the depth of ESG-HRM integration across Southeast Asia.

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