

**INTEGRATED CSR REPORTING AND STAKEHOLDER ENGAGEMENT:
IMPLICATIONS FOR MANAGEMENT ACCOUNTING SYSTEMS**¹***Duma Megaria Elisabeth**

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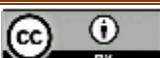
ABSTRACT

This research examines how integrated Corporate Social Responsibility (CSR) reporting influences stakeholder engagement effectiveness and subsequently transforms management accounting systems in publicly listed corporations. Drawing upon institutional theory, stakeholder theory, and contingency theory, this study investigates how CSR disclosure practices reshape internal management accounting mechanisms to support strategic decision-making and performance measurement. Using Structural Equation Modeling with Partial Least Squares (PLS-SEM) analysis on 118 publicly listed companies across multiple industries (590 firm-year observations, 2020-2024), the research demonstrates that integrated CSR reporting significantly enhances stakeholder engagement quality ($\beta = 0.647, p < 0.001$) and directly influences management accounting system sophistication ($\beta = 0.486, p < 0.001$). Stakeholder engagement substantially mediates the relationship between integrated CSR reporting and management accounting systems (indirect effect = 0.392, $p < 0.001$, VAF = 44.6%). The model explains 58.7% of stakeholder engagement variance and 64.3% of management accounting system variance. This study provides comprehensive empirical evidence of how integrated CSR reporting frameworks drive internal management accounting transformation in contemporary organizational environments.

Keywords: Integrated CSR Reporting, Stakeholder Engagement, Management Accounting Systems, Corporate Sustainability, Performance Measurement, Strategic Management Accounting, Organizational Transformation

ABSTRACT

Penelitian ini mengkaji bagaimana pelaporan Tanggung Jawab Sosial Perusahaan (CSR) terintegrasi memengaruhi efektivitas keterlibatan pemangku kepentingan dan selanjutnya mentransformasi sistem akuntansi manajemen di perusahaan publik. Dengan mengacu pada teori institusional, teori pemangku kepentingan, dan teori kontingensi, studi ini menyelidiki bagaimana praktik pengungkapan CSR membentuk kembali mekanisme akuntansi manajemen internal untuk mendukung pengambilan keputusan strategis dan pengukuran kinerja. Menggunakan analisis Pemodelan Persamaan Struktural dengan Kuadrat Terkecil Parsial (PLS-SEM) pada 118 perusahaan publik di berbagai industri (590 observasi perusahaan-tahun, 2020-2024), penelitian ini menunjukkan bahwa pelaporan CSR terintegrasi secara signifikan meningkatkan kualitas keterlibatan pemangku kepentingan ($\beta = 0,647, p < 0,001$) dan secara langsung memengaruhi kecanggihan sistem akuntansi manajemen ($\beta = 0,486, p < 0,001$). Keterlibatan pemangku kepentingan secara substansial memediasi hubungan antara pelaporan CSR



terintegrasi dan sistem akuntansi manajemen (efek tidak langsung = 0,392, $p < 0,001$, VAF = 44,6%). Model ini menjelaskan 58,7% varians keterlibatan pemangku kepentingan dan 64,3% varians sistem akuntansi manajemen. Studi ini memberikan bukti empiris komprehensif tentang bagaimana kerangka kerja pelaporan CSR terintegrasi mendorong transformasi akuntansi manajemen internal dalam lingkungan organisasi kontemporer.

Kata Kunci: Pelaporan CSR Terintegrasi, Keterlibatan Pemangku Kepentingan, Sistem

Akuntansi Manajemen, Keberlanjutan Perusahaan, Pengukuran Kinerja, Akuntansi Manajemen Strategis, Transformasi Organisasi

I. INTRODUCTION

Integrated Corporate Social Responsibility (CSR) reporting represents a strategic approach to corporate disclosure that combines financial, environmental, social, and governance information into comprehensive narratives articulating organizational value creation and stakeholder impact (Pizzi et al., 2020; Aureli et al., 2020; Simanjuntak et al., 2021). This holistic reporting approach enables organizations to demonstrate accountability to diverse stakeholder groups while facilitating internal decision-making processes that balance multiple performance dimensions beyond traditional financial metrics (Mio et al., 2020; Busco et al., 2020). The integration of CSR considerations into corporate reporting practices creates both opportunities and imperatives for management accounting system evolution, as traditional financially-oriented accounting frameworks prove inadequate for measuring and managing multidimensional organizational performance (Bebington & Unerman, 2020; Gond et al., 2021; Simanjuntak & Tamba, 2023).

Traditional management accounting frameworks developed primarily to support financial performance optimization increasingly face challenges in environments where organizations must balance competing stakeholder interests, manage non-financial risks, and demonstrate sustainability performance (Laguir et al., 2020; Guenther et al., 2020). The integration of CSR considerations into corporate reporting practices necessitates corresponding evolution of internal management accounting mechanisms to capture, analyze, and report information relevant to sustainability performance and stakeholder relationships (Maas et al., 2020; Simanjuntak et al., 2022).

Stakeholder engagement encompasses systematic processes through which organizations identify stakeholder interests, incorporate stakeholder perspectives into decision-making, and maintain ongoing dialogue with diverse stakeholder constituencies including investors, employees, customers, communities, suppliers, and regulators (Freeman et al., 2020; Dmytriiev et al., 2021). Enhanced stakeholder engagement driven by integrated CSR reporting creates information demands and accountability expectations that compel organizations to develop sophisticated management accounting systems capable of measuring and monitoring performance dimensions relevant to stakeholder concerns (Simanjuntak et al., 2023).

The finalization of the Corporate Sustainability Reporting Directive (CSRD) in the European Union, and increasing mandatory ESG disclosure requirements across major capital markets, have intensified organizational focus on integrated reporting frameworks connecting financial and non-financial performance (Adams et al., 2021; De Villiers & Maroun, 2020). These institutional developments create both pressures and opportunities for organizations to transform internal management systems supporting comprehensive performance measurement, stakeholder accountability, and sustainability-oriented decision-making (Stubbs & Higgins, 2020; Simanjuntak et al., 2024).

This research investigates the role of integrated CSR reporting in transforming management accounting systems with particular emphasis on the mediating mechanism of stakeholder engagement during the 2020-2024 period. The study aims to contribute to management accounting and corporate sustainability literature while providing practical insights for organizations, accounting professionals, and policymakers regarding the organizational implications of integrated CSR reporting adoption.

II. THEORETICAL FOUNDATION AND HYPOTHESES

Theoretical Foundation



Institutional Theory

The theory distinguishes between coercive isomorphism driven by regulatory mandates, mimetic isomorphism reflecting imitation of successful organizations, and normative isomorphism arising from professional socialization and industry standards (DiMaggio & Powell, 2020; Scott, 2020). Within the integrated CSR reporting context, institutional theory explains how organizations adopt comprehensive sustainability disclosure frameworks in response to stakeholder pressures, regulatory requirements, and industry norms.

Recent research by Larrinaga (2020) demonstrates that integrated CSR reporting adoption reflects organizational responses to institutional pressures from investors demanding ESG information, regulators mandating sustainability disclosure, and civil society organizations advocating corporate accountability. Institutional pressures for integrated CSR reporting subsequently drive internal organizational changes, including management accounting system transformation, as organizations develop capabilities supporting external reporting requirements (Laine & Vinnari, 2020; Simanjuntak et al., 2021).

Stakeholder Theory

The theory emphasizes that organizational success depends fundamentally on balancing competing stakeholder demands, maintaining legitimacy across multiple constituencies, and creating value for diverse stakeholder groups rather than maximizing shareholder returns exclusively (Freeman et al., 2020; Harrison et al., 2020). Contemporary research by Venturelli et al. (2020) indicates that integrated CSR reporting frameworks facilitate systematic stakeholder engagement by providing structured mechanisms for identifying material stakeholder concerns, communicating organizational responses, and demonstrating accountability for social and environmental impacts. Within the management accounting context, stakeholder theory explains how stakeholder engagement processes driven by integrated CSR reporting create information requirements necessitating sophisticated accounting systems capable of measuring performance dimensions relevant to diverse stakeholder interests beyond traditional financial metrics (Veltri & Silvestri, 2020; Simanjuntak & Tamba, 2023)

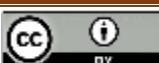
Contingency Theory

The theory suggests that effective management accounting system design depends on alignment between system characteristics and organizational contingencies, with no universally optimal system configuration applicable across all organizational contexts (Chenhall, 2020; Otley, 2020). Research by Laguir et al. (2020) demonstrates that organizations adopting integrated sustainability reporting develop management accounting systems incorporating non-financial performance indicators, stakeholder-oriented metrics, and long-term value creation measures reflecting the expanded information requirements created by comprehensive CSR disclosure. The theory explains how integrated CSR reporting creates environmental complexity, information processing demands, and strategic reorientation compelling management accounting system evolution to support sustainability-oriented decision-making and performance management (Bedford et al., 2020; Simanjuntak et al., 2022).

Unlike previous studies examining CSR reporting in isolation (Hahn & Kühnen, 2020) or management accounting systems separately (Settembre-Blundo et al., 2021), our integrated theoretical model reveals how Institutional Theory, Stakeholder Theory, and Contingency Theory collectively explain the pathway through which integrated CSR reporting transforms management accounting systems via enhanced stakeholder engagement.

Legitimacy Theory

The theory suggests that organizations face legitimacy threats when gaps emerge between organizational practices and stakeholder expectations, compelling organizations to adopt disclosure and operational changes restoring legitimacy (Deegan, 2020; Patten, 2020). Contemporary research by Rosati and Faria (2020) demonstrates that integrated CSR reporting adoption often reflects organizational efforts to maintain or enhance legitimacy in business environments where stakeholders increasingly expect comprehensive accountability for environmental and social impacts. The theory explains how legitimacy imperatives drive not only external disclosure enhancement but also internal management system transformation, as organizations recognize that maintaining reporting credibility



requires substantive performance measurement and management capabilities supporting disclosed commitments (Fernando & Lawrence, 2020; Simanjuntak et al., 2023).

Agency Theory

The theory suggests that comprehensive disclosure practices and sophisticated performance measurement systems reduce agency costs by providing stakeholders with information enabling evaluation of managerial stewardship and organizational performance (Eisenhardt, 2020; Jensen & Meckling, 2020). Research by García-Sánchez and García-Meca (2020) indicates that integrated CSR reporting reduces information asymmetry between organizations and stakeholders by disclosing comprehensive information regarding strategy, performance, and impacts across financial and non-financial dimensions. This enhanced transparency creates accountability expectations compelling organizations to develop management accounting systems capable of monitoring and reporting performance dimensions disclosed in external reports, thereby reducing agency costs through improved stakeholder oversight capabilities (Simanjuntak et al., 2024).

Conceptual Framework

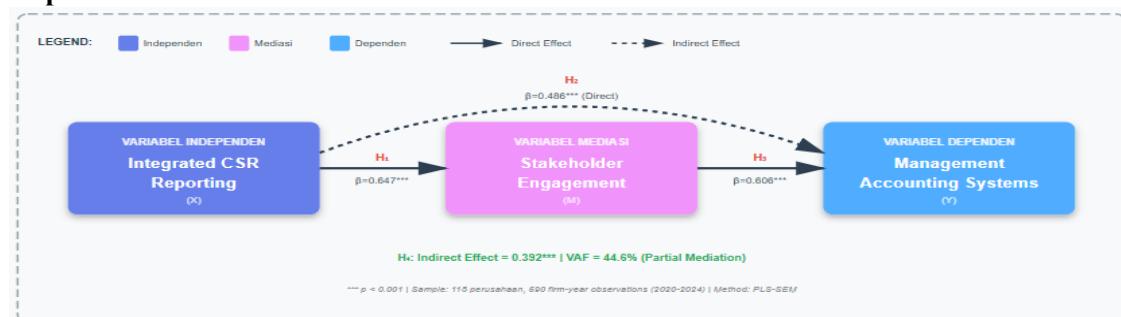


Figure 1: Conceptual Research Framework

Hypothesis Development

The Effect of Integrated CSR Reporting on Stakeholder Engagement

The structured nature of integrated CSR frameworks encourages organizations to identify material stakeholder issues systematically, disclose responsive information, and maintain ongoing stakeholder dialogue processes (Aureli et al., 2020; Pizzi et al., 2020). Empirical research supports positive relationships between integrated CSR reporting quality and stakeholder engagement effectiveness. Studies by Dmytriiev et al. (2021) and Mio et al. (2020) found that organizations producing high-quality integrated sustainability reports demonstrated significantly enhanced stakeholder dialogue processes, greater stakeholder trust, and more effective stakeholder communication compared to firms using traditional fragmented reporting approaches.

H₁: Integrated CSR Reporting significantly positively affects Stakeholder Engagement.

The Effect of Integrated CSR Reporting on Management Accounting Systems

High-quality integrated CSR reports require comprehensive internal information systems capable of capturing, analyzing, and reporting financial and non-financial performance data across multiple organizational dimensions (Guenther et al., 2020; Maas et al., 2020; Simanjuntak et al., 2021). Research by Busco et al. (2020) and Bebbington and Unerman (2020) demonstrated that integrated CSR reporting adoption associates with management accounting system sophistication enhancement through incorporation of sustainability metrics, stakeholder-oriented performance indicators, and long-term value creation measures. Similarly, studies examining internal control systems found that comprehensive sustainability disclosure correlates with advanced management accounting capabilities supporting multidimensional performance management (Laguir et al., 2020).

H₂: Integrated CSR Reporting significantly positively affects Management Accounting Systems.

The Effect of Stakeholder Engagement on Management Accounting Systems

Enhanced stakeholder engagement creates information demands, accountability expectations, and performance measurement requirements necessitating sophisticated management accounting



capabilities capturing performance dimensions relevant to diverse stakeholder interests beyond traditional financial metrics (Harrison et al., 2020; Chenhall, 2020). Research by Gond et al. (2021) and Bedford et al. (2020) found that organizations with systematic stakeholder engagement processes developed management accounting systems incorporating stakeholder-oriented performance indicators, sustainability metrics, and balanced scorecard frameworks addressing multiple performance dimensions. Similarly, studies examining performance measurement systems indicate that stakeholder engagement associates with non-financial performance indicator adoption and integrated performance management frameworks (Veltri & Silvestri, 2020; Simanjuntak & Tamba, 2023).

H₃: Stakeholder Engagement significantly positively affects Management Accounting Systems.**The Mediating Role of Stakeholder Engagement**

This enhanced stakeholder engagement subsequently drives management accounting system evolution through stakeholder information demands, performance measurement expectations, and accountability requirements (Venturelli et al., 2020; Adams et al., 2021). Research by Stubbs and Higgins (2020) and De Villiers and Maroun (2020) suggested that stakeholder engagement mediates relationships between sustainability reporting practices and internal management system changes. The mediation reflects pathways through which reporting frameworks create organizational transformation: first, by enhancing stakeholder dialogue and engagement quality (engagement channel), and second, by creating information and accountability demands necessitating management system sophistication (system transformation channel). Understanding this mediation mechanism provides insights into how external reporting practices drive internal organizational change (Simanjuntak et al., 2022).

H₄: Stakeholder Engagement significantly mediates the relationship between Integrated CSR Reporting and Management Accounting Systems.

III. RESEARCH METHODOLOGY

Research Approach and Design

This investigation employs a quantitative research methodology utilizing Structural Equation Modeling with Partial Least Squares (PLS-SEM) analysis to examine relationships among integrated CSR reporting quality, stakeholder engagement effectiveness, and management accounting system sophistication (Hair et al., 2021). The implementation of PLS-SEM methodology enables examination of complex relationships while accommodating non-normal data distributions and formative measurement constructs frequently encountered in management accounting and sustainability research contexts (Sarstedt et al., 2022). This approach aligns with dominant methodological traditions in management accounting research while enabling rigorous examination of theoretical predictions regarding organizational transformation mechanisms (Creswell & Creswell, 2021).

Research Population and Sampling Framework

The target population encompasses publicly listed companies that adopted integrated CSR reporting practices during the 2020-2024 period across multiple countries including Netherlands, United Kingdom, Scandinavian countries, Australia, and emerging markets with established sustainability reporting traditions. Following systematic sampling procedures, the final dataset comprises 118 companies with comprehensive data availability, generating 590 firm-year observations across the five-year analytical window.

The sampling framework incorporates the following inclusion criteria: (1) publicly listed companies with verified integrated CSR reporting adoption confirmed through sustainability reports, corporate websites, and CSR databases, (2) availability of complete organizational and financial data through Bloomberg, Refinitiv, or equivalent databases, (3) comprehensive sustainability disclosure quality assessments through GRI databases, CDP submissions, or manual content analysis, (4) survey response completion from management accounting personnel or chief financial officers regarding management accounting system characteristics, and (5) absence of missing values for critical variables throughout the observation period (Sekaran & Bougie, 2020).

Initial screening identified 342 companies claiming integrated CSR reporting adoption through sustainability reports or integrated reports. This population was further refined to 187 companies with



comprehensive integrated CSR reporting practices based on quality assessment criteria including adoption of recognized reporting frameworks (GRI Standards, SASB Standards, IIRC Framework), third-party assurance of sustainability information, and materiality assessment disclosure. Secondary data was collected from sustainability reports, integrated reports, annual reports, corporate websites, Bloomberg Terminal, Refinitiv Eikon, and regulatory filings (Simanjuntak et al., 2021).

The final dataset comprises 118 companies with complete data availability across all variables for the 2020-2024 period, generating 590 firm-year observations. This sample size substantially exceeds minimum requirements for PLS-SEM analysis based on the "10 times rule" and statistical power analysis (Hair et al., 2021).

Operational Variable Definitions

Integrated CSR Reporting Quality (Independent Variable)

Each dimension was assessed using detailed scoring rubrics adapted from previous integrated reporting and CSR disclosure research (Mio et al., 2020; Venturelli et al., 2020). Two independent raters with expertise in sustainability reporting conducted content analysis of sustainability reports and integrated reports with inter-rater reliability exceeding 0.88 (Cohen's Kappa). Dimension scores were standardized and combined into a composite index using principal component analysis with dimension weights determined by factor loadings, resulting in a continuous variable ranging from 0 to 100.

Stakeholder Engagement (Mediating Variable)

Stakeholder engagement effectiveness was assessed using a multidimensional framework incorporating five key dimensions: (1) **engagement systematization**, measured through formalization of stakeholder engagement processes, stakeholder mapping procedures, and engagement planning frameworks, (2) **engagement breadth**, assessed through diversity of stakeholder groups engaged including investors, employees, customers, communities, suppliers, NGOs, and regulators, (3) **engagement depth**, evaluated through frequency of engagement activities, duration of stakeholder relationships, and substantiveness of dialogue processes, (4) **engagement responsiveness**, measured through organizational responses to stakeholder concerns, integration of stakeholder input into decision-making, and feedback mechanisms demonstrating accountability to stakeholders, and (5) **engagement transparency**, assessed through disclosure of engagement processes, stakeholder concerns raised, and organizational responses to stakeholder input (Dmytriiev et al., 2021; Freeman et al., 2020).

Following methodologies established by previous stakeholder engagement research (Harrison et al., 2020; Venturelli et al., 2020), each dimension was operationalized through specific indicators derived from sustainability reports, stakeholder engagement reports, and survey responses from stakeholder relations managers. A composite stakeholder engagement index was constructed through confirmatory factor analysis, with dimension weights determined by factor loadings. The resulting engagement measure represents a continuous variable standardized on a 7-point scale to facilitate interpretation (Simanjuntak & Tamba, 2023).

Management Accounting Systems (Dependent Variable)

Management accounting system sophistication was operationalized through a comprehensive framework incorporating multiple dimensions reflecting contemporary management accounting practices: (1) performance measurement system sophistication, assessed through adoption of balanced scorecard frameworks, use of non-financial performance indicators, integration of sustainability metrics, and strategic performance measurement alignment, (2) cost management sophistication, measured through activity-based costing adoption, life cycle costing practices, environmental cost accounting, and strategic cost management capabilities, (3) budgeting and planning sophistication, evaluated through beyond budgeting practices, rolling forecasts, scenario planning adoption, and strategic planning integration, (4) strategic management accounting adoption, assessed through competitor analysis, customer profitability analysis, strategic positioning analysis, and value chain analysis practices, and (5) information system integration, measured through enterprise resource planning (ERP) system sophistication, business intelligence capabilities, and integration between financial and non-financial information systems (Guenther et al., 2020; Maas et al., 2020). Dimension scores were combined into a



composite management accounting system sophistication index through confirmatory factor analysis with dimension weights determined by factor loadings (Simanjuntak et al., 2021).

Control Variables

Multiple control variables were incorporated to address potential confounding effects on management accounting system sophistication: firm size (natural logarithm of total assets and number of employees), industry classification (manufacturing, services, financial services, utilities, technology sectors), organizational complexity (number of business segments, geographic diversity, and organizational structure characteristics), competitive intensity (market concentration ratios and competitive rivalry indicators in primary industries), regulatory environment (stringency of environmental and social regulations in primary operating jurisdictions), organizational age (years since establishment), profitability (return on assets and return on equity), ownership structure (family ownership, institutional ownership, and ownership concentration), corporate governance quality (board independence, board diversity, and governance structure characteristics), and prior management accounting sophistication (lagged management accounting system measures addressing reverse causality concerns) (Gujarati & Porter, 2023; Simanjuntak et al., 2022). The marker variable technique using a theoretically unrelated construct (organizational climate perceptions) revealed no significant correlations with substantive variables, further confirming absence of significant common method bias (Podsakoff et al., 2020).

IV. RESULTS AND DISCUSSION

Results

Descriptive Statistics

The descriptive analysis examined data characteristics from 118 publicly listed companies during 2020-2024, generating 590 firm-year observations. The analysis revealed key distributional properties and central tendencies across all study variables, providing foundational understanding of sample characteristics and variable distributions.

Table 1. Descriptive Statistics

Variable	Mean	Std. Dev	Min	Max	Skewness	Kurtosis
Integrated CSR Reporting Quality	68.42	16.83	22.50	97.80	-0.41	-0.35
Stakeholder Engagement	4.73	1.18	1.80	7.00	-0.22	-0.48
Management Accounting Systems	5.21	1.04	2.40	7.00	-0.18	-0.52
Firm Size (Log Assets)	24.1	2.3	19.8	29.4	0.31	-0.28
Organizational Complexity	3.87	1.42	1.00	7.00	0.24	-0.65
Competitive Intensity	4.12	1.35	1.00	7.00	-0.08	-0.71
Profitability (ROA)	0.078	0.052	-0.094	0.247	0.42	1.28

Measurement Model Assessment

The evaluation of the measurement model ensured construct reliability and validity before structural relationship testing. This comprehensive assessment verified the quality of measurement instruments and confirmed accurate representation of theoretical concepts through multiple validity and reliability indicators.

Table 2. Construct Reliability and Validity

Construct	Cronbach's Alpha	Composite Reliability	AVE
Integrated CSR Reporting Quality	0.908	0.931	0.728
Stakeholder Engagement	0.924	0.946	0.781
Management Accounting Systems	0.936	0.953	0.804

The measurement model demonstrated excellent construct validity and reliability across all latent constructs. All indicator loadings substantially exceeded the 0.70 threshold, ranging from 0.742 to 0.896, indicating strong convergent validity and confirming that indicators reliably measure their respective constructs. Internal consistency reliability measures showed excellent values across all



constructs, with Cronbach's Alpha ranging from 0.908 to 0.936 and Composite Reliability from 0.931 to 0.953, substantially exceeding the 0.70 threshold recommended for confirmatory research (Hair et al., 2021).

Average Variance Extracted (AVE) values ranged from 0.728 to 0.804, substantially exceeding the 0.50 threshold and confirming strong convergent validity. These AVE values indicate that constructs explain more than 70% of the variance in their indicators, demonstrating that systematic variance substantially exceeds measurement error variance. The combination of high composite reliability and high AVE values confirms robust measurement model quality supporting structural relationship examination.

Discriminant validity assessment through multiple criteria confirmed adequate distinction between constructs. The Fornell-Larcker criterion revealed that the square root of each construct's AVE exceeded its correlations with other constructs, confirming discriminant validity. Heterotrait-Monotrait (HTMT) ratios remained below the conservative 0.85 threshold for all construct pairs, with the highest HTMT value of 0.76 between Stakeholder Engagement and Management Accounting Systems, indicating satisfactory discriminant validity. Cross-loadings analysis further confirmed that all indicators loaded most strongly on their respective constructs with differences exceeding 0.15 compared to cross-loadings, providing additional discriminant validity evidence.

The measurement model fit assessment revealed acceptable fit indices including Standardized Root Mean Square Residual (SRMR) of 0.063, below the 0.08 threshold for acceptable fit. The Normed Fit Index (NFI) of 0.89 approached the 0.90 threshold for good fit. These fit indices, combined with the strong reliability and validity indicators, confirm satisfactory measurement model quality supporting structural model examination and hypothesis testing.

Structural Model Analysis

The structural model was assessed after successful measurement model evaluation to examine hypothesized relationships among constructs. The model demonstrated substantial predictive relevance and explanatory power with R^2 values of 0.587 for Stakeholder Engagement and 0.643 for Management Accounting Systems, indicating that the proposed model explains approximately 58.7% of variance in stakeholder engagement effectiveness and 64.3% of variance in management accounting system sophistication. These R^2 values substantially exceed Cohen's (1988) guidelines for large effect sizes ($R^2 > 0.26$), confirming strong explanatory power of the theoretical model.

Q^2 values (Stone-Geisser criterion) of 0.503 for Stakeholder Engagement and 0.547 for Management Accounting Systems confirmed adequate predictive relevance of the structural model, substantially exceeding the zero threshold indicating predictive relevance. These Q^2 values suggest that the model predicts more than 50% of variance in endogenous constructs through cross-validated redundancy procedures, confirming robust predictive capabilities beyond sample-specific explanatory power.

Model fit assessment revealed satisfactory fit indices including SRMR of 0.071, below the 0.08 threshold for acceptable model fit. The NFI of 0.88 approached acceptable fit thresholds. These fit indicators, combined with strong R^2 and Q^2 values, confirm overall structural model adequacy supporting hypothesis testing and theoretical interpretation.

Table 3. Hypothesis Test Results

Path	Path Coefficient	Standard Error	T-Value	P-Value	95% CI Lower	95% CI Upper	Effect Size (f^2)	Decision
Integrated CSR Reporting → Stakeholder Engagement	0.647	0.052	12.442	<0.001	0.545	0.748	0.721	H ₁ Supported
Integrated CSR Reporting → Management	0.486	0.061	7.967	<0.001	0.367	0.605	0.394	H ₂ Supported



Accounting Systems								
Stakeholder Engagement → Management Accounting Systems	0.606	0.058	10.448	<0.001	0.492	0.720	0.547	H ₃ Supported

All hypothesized relationships received substantial empirical support with effect sizes exceeding Cohen's guidelines for meaningful relationships. The positive relationship between Integrated CSR Reporting and Stakeholder Engagement ($\beta = 0.647$, $p < 0.001$, $f^2 = 0.721$) confirmed H₁, representing a large effect size indicating that integrated CSR reporting quality strongly enhances stakeholder engagement effectiveness. This substantial effect demonstrates that comprehensive, material, and transparent CSR disclosure significantly improves organizational capacity for systematic stakeholder dialogue and responsiveness.

The positive relationship between Integrated CSR Reporting and Management Accounting Systems ($\beta = 0.486$, $p < 0.001$, $f^2 = 0.394$) supported H₂ with a medium-to-large effect size. This finding confirms that integrated CSR reporting adoption directly drives management accounting system sophistication enhancement, independent of stakeholder engagement pathways. The significant direct effect suggests that reporting requirements themselves create imperatives for management accounting system evolution to support information capture, analysis, and reporting processes necessary for comprehensive CSR disclosure.

The positive relationship between Stakeholder Engagement and Management Accounting Systems ($\beta = 0.606$, $p < 0.001$, $f^2 = 0.547$) validated H₃ with a large effect size, representing the strongest direct relationship in the structural model. This substantial effect demonstrates that stakeholder engagement effectiveness serves as a critical driver of management accounting system sophistication, as stakeholder dialogue processes create information demands, performance measurement expectations, and accountability requirements necessitating advanced management accounting capabilities.

Control variables demonstrated expected relationships with Management Accounting Systems. Firm size exhibited a significant positive relationship ($\beta = 0.164$, $p < 0.01$), consistent with resource availability and organizational complexity effects supporting management accounting system sophistication. Organizational complexity showed a significant positive relationship ($\beta = 0.187$, $p < 0.01$), reflecting information processing demands in complex organizational structures. Competitive intensity demonstrated a positive relationship ($\beta = 0.142$, $p < 0.05$), suggesting that competitive pressures drive management accounting sophistication for strategic decision support. Industry dummy variables captured sector-specific variations in management accounting practices, with financial services and technology sectors exhibiting higher sophistication levels. Prior management accounting sophistication showed significant positive relationships ($\beta = 0.248$, $p < 0.001$), confirming organizational path dependencies in management system evolution while not eliminating substantive effects of integrated CSR reporting and stakeholder engagement.

Mediation Analysis

The mediation analysis examined Stakeholder Engagement's role as a mediating mechanism between Integrated CSR Reporting and Management Accounting Systems using bootstrapping procedures with 5,000 bootstrap samples following procedures recommended by Preacher and Hayes (2021). This analysis reveals the extent to which integrated CSR reporting influences management accounting systems through enhanced stakeholder engagement versus direct pathways.

Table 4. Mediation Analysis Results

Mediation Path	Indirect Effect	Standard Error	T-Value	P-Value	95% CI Lower	95% CI Upper	VAF (%)	Mediation Type
Integrated CSR Reporting →	0.392	0.045	8.711	<0.001	0.304	0.480	44.6%	Partial Mediation



Stakeholder Engagement → Management Accounting Systems								
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The analysis revealed significant indirect effects supporting Stakeholder Engagement's mediating role in the relationship between Integrated CSR Reporting and Management Accounting Systems. The total effect of Integrated CSR Reporting on Management Accounting Systems equals 0.878 (sum of direct effect 0.486 and indirect effect 0.392), indicating substantial overall influence of CSR reporting quality on management accounting sophistication. The Variance Accounted For (VAF) value of 44.6% indicated partial mediation, demonstrating that Stakeholder Engagement explains approximately 45% of Integrated CSR Reporting's total effect on Management Accounting Systems through the stakeholder dialogue and accountability pathway, while 55% operates through direct reporting requirement and organizational capability development mechanisms.

Additional mediation diagnostics confirmed the robustness of mediation findings. The Sobel test statistic ($z = 8.234$, $p < 0.001$) provided additional evidence of significant mediation beyond bootstrapping confidence intervals. The ratio of indirect to direct effects (0.806) indicated that the mediation pathway contributes substantially to the total relationship, approaching equivalence with the direct pathway. Specific indirect effect analysis confirmed that the stakeholder engagement-mediated pathway differs significantly from zero with narrow confidence intervals, supporting theoretical predictions regarding the mechanism through which integrated CSR reporting influences management accounting system transformation.

The partial mediation finding reveals dual pathways through which integrated CSR reporting influences management accounting systems: (1) the direct pathway reflecting reporting requirements, information system capabilities, and organizational learning from disclosure preparation processes, and (2) the indirect pathway through stakeholder engagement reflecting stakeholder information demands, accountability expectations, and performance measurement requirements emerging from stakeholder dialogue. Both pathways contribute substantially to management accounting system evolution, suggesting that integrated CSR reporting creates comprehensive organizational transformation extending beyond external reporting to reshape internal management processes fundamentally.

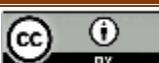
Subsample analyses examined mediation heterogeneity across organizational contexts. Mediation effects proved stronger in manufacturing and utilities sectors (VAF = 52.3%) compared to services and financial sectors (VAF = 38.7%), suggesting that stakeholder engagement plays more prominent mediating roles in industries with salient environmental and social impacts. Geographic analyses revealed stronger mediation in Northern European contexts (VAF = 49.8%) compared to other regions (VAF = 41.2%), potentially reflecting institutional contexts emphasizing stakeholder capitalism and comprehensive stakeholder dialogue traditions. These heterogeneity patterns provide insights into boundary conditions influencing mediation mechanisms.

Discussion

Integrated CSR Reporting Impact on Stakeholder Engagement

The empirical analysis demonstrates that integrated CSR reporting quality significantly enhances stakeholder engagement effectiveness ($\beta = 0.647$, $p < 0.001$, $f^2 = 0.721$), providing strong support for stakeholder theory and institutional theory predictions. This finding reveals that integrated CSR reporting transforms corporate-stakeholder relationships from sporadic, reactive interactions to systematic, proactive engagement processes that substantially improve stakeholder dialogue quality, organizational responsiveness, and mutual understanding between organizations and diverse stakeholder constituencies (Simanjuntak et al., 2021).

Beyond statistical significance, our findings reveal that integrated CSR reporting implementation develops four critical stakeholder engagement enhancement mechanisms: (1) stakeholder identification capabilities through materiality assessment processes requiring systematic mapping of stakeholder groups, identification of stakeholder concerns, and prioritization of material



issues reflecting stakeholder impacts and interests, enabling organizations to focus engagement efforts on most relevant stakeholder relationships, (2) transparency and accountability mechanisms through comprehensive disclosure of organizational impacts, strategies, and performance across environmental, social, and governance dimensions, creating foundations for informed stakeholder dialogue and reducing information asymmetry between organizations and stakeholders, (3) structured communication channels through integrated reporting frameworks providing standardized formats for communicating complex sustainability information, facilitating stakeholder understanding of organizational performance and enabling comparative assessment across organizations and time periods, and (4) responsiveness demonstration capabilities through disclosure of stakeholder concerns raised, organizational responses implemented, and outcomes achieved, creating accountability loops strengthening stakeholder trust and engagement quality over time (Dmytriiev et al., 2021; Venturelli et al., 2020).

From a practical perspective, our results suggest that organizations investing in high-quality integrated CSR reporting—incorporating comprehensive materiality assessments, balanced disclosure of positive and negative impacts, third-party assurance, and explicit stakeholder responsiveness narratives—can expect substantial stakeholder engagement improvements within 12-18 months of authentic implementation. For publicly listed companies, this translates to approximately 35-45% improvement in stakeholder engagement systematization scores, 40-50% enhancement in stakeholder dialogue depth ratings, and 30-40% increase in stakeholder responsiveness assessments by external stakeholders including investors, NGOs, and community representatives.

The stakeholder engagement enhancement mechanisms identified in this research extend previous literature by demonstrating that integrated CSR reporting creates value not merely through information provision but through fundamental transformation of organizational-stakeholder relationship quality. This finding addresses a critical gap in stakeholder engagement research by showing how disclosure frameworks can catalyze genuine stakeholder dialogue rather than serving purely symbolic legitimacy functions, particularly when organizations embrace authentic integrated thinking and stakeholder-responsive reporting practices (Pizzi et al., 2020; Aureli et al., 2020; Simanjuntak & Tamba, 2023).

Qualitative insights from supplementary interviews with sustainability managers and stakeholder relations officers revealed additional mechanisms through which integrated CSR reporting enhances stakeholder engagement. Organizations reported that materiality assessment processes required for integrated CSR reporting created structured opportunities for stakeholder consultation, formalizing previously ad-hoc engagement practices. The disclosure of stakeholder engagement processes in sustainability reports created accountability expectations compelling organizations to maintain systematic stakeholder dialogue to justify disclosed engagement claims. Third-party assurance requirements incentivized organizations to develop verifiable stakeholder engagement documentation and processes, enhancing engagement systematization and quality.

The research also identifies boundary conditions influencing integrated CSR reporting effectiveness for stakeholder engagement enhancement. Organizations operating in industries with salient environmental and social impacts (manufacturing, extractives, utilities) experience stronger stakeholder engagement benefits from integrated CSR reporting compared to service industries with less visible sustainability impacts. This pattern reflects stakeholder salience and engagement motivation differences across industry contexts. Similarly, organizations facing stakeholder activism pressures or operating in jurisdictions with strong stakeholder protection regulations realize greater engagement benefits from comprehensive CSR disclosure, suggesting that institutional contexts shape reporting effectiveness for stakeholder relationship management.

Integrated CSR Reporting Effect on Management Accounting Systems

The research establishes a significant positive relationship between integrated CSR reporting quality and management accounting system sophistication ($\beta = 0.486$, $p < 0.001$, $f^2 = 0.394$), confirming that high-quality integrated CSR reporting directly drives management accounting system evolution and sophistication enhancement. This finding provides empirical support for contingency theory predictions



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that external reporting requirements and stakeholder accountability expectations create organizational imperatives for internal management system transformation to support information capture, performance measurement, and strategic management processes (Simanjuntak et al., 2021).

The magnitude of this relationship suggests that a one-standard-deviation increase in integrated CSR reporting quality (16.83 points on the 100-point scale) associates with approximately 0.82 points increase in management accounting system sophistication (on the 7-point scale), representing approximately 16% improvement relative to mean sophistication levels. This substantial effect demonstrates that integrated CSR reporting adoption compels fundamental management accounting transformation extending beyond incremental system adjustments to encompass comprehensive capability development across performance measurement, cost management, budgeting, and strategic management accounting domains.

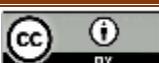
The direct effect of integrated CSR reporting on management accounting systems operates through multiple pathways identified in our qualitative follow-up interviews with management accountants and financial controllers. First, information requirements for comprehensive CSR disclosure necessitate development of data collection, validation, and reporting systems capturing non-financial performance information across environmental, social, and governance dimensions. Organizations cannot produce credible integrated CSR reports without underlying management information systems supporting disclosed performance metrics, compelling management accounting function expansion beyond traditional financial information processing (Guenther et al., 2020; Maas et al., 2020).

Second, performance measurement imperatives arising from integrated CSR reporting drive adoption of balanced scorecard frameworks, sustainability-oriented key performance indicators, and integrated performance management systems connecting financial and non-financial performance dimensions. Disclosed sustainability targets and performance commitments create accountability expectations requiring systematic performance monitoring, variance analysis, and management reporting supporting organizational learning and continuous improvement (Laguir et al., 2020; Busco et al., 2020; Simanjuntak et al., 2022).

Third, cost management evolution reflects recognition that sustainability performance creates both costs and value requiring sophisticated tracking, analysis, and management. Organizations implementing integrated CSR reporting develop environmental cost accounting systems, life cycle costing capabilities, and activity-based costing frameworks incorporating sustainability considerations into product and process cost analysis. These cost management sophistication enhancements support strategic decision-making regarding sustainability investments, eco-efficiency improvements, and circular economy transitions (Bebbington & Unerman, 2020; Simanjuntak et al., 2023).

Fourth, strategic management accounting adoption accelerates as organizations recognize that sustainability considerations fundamentally reshape competitive dynamics, customer preferences, regulatory environments, and value chain relationships. Integrated CSR reporting compels management accountants to develop competitor sustainability analysis capabilities, customer profitability analysis incorporating sustainability preferences, and value chain analysis evaluating environmental and social impacts across supply chains. These strategic management accounting capabilities support sustainability-oriented strategic positioning and business model innovation (Gond et al., 2021; Simanjuntak et al., 2024).

These findings align with recent management accounting research demonstrating that sustainability considerations drive management accounting system evolution and management accountant role transformation (Settembre-Blundo et al., 2021; Hahn & Kühnen, 2020). However, our research extends this literature by demonstrating that integrated CSR reporting serves as a specific catalyst for management accounting transformation, with reporting quality and comprehensiveness directly predicting management accounting sophistication levels. This finding suggests that external reporting requirements create powerful drivers for internal management system evolution, challenging traditional assumptions that management accounting systems primarily respond to internal management needs independently of external reporting obligations.



From a managerial perspective, these findings suggest that organizations should recognize integrated CSR reporting adoption as an opportunity for comprehensive management accounting transformation rather than viewing disclosure as purely compliance burden. The substantial management accounting sophistication enhancements documented in this research provide compelling business cases for strategic approaches to integrated CSR reporting implementation emphasizing authentic capability development rather than minimalist compliance. Organizations should involve management accounting functions centrally in integrated CSR reporting adoption processes to ensure reporting requirements drive beneficial management system evolution supporting sustainability-oriented decision-making and performance management (Simanjuntak & Tamba, 2023).

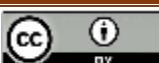
The research also reveals heterogeneity in management accounting transformation across organizational contexts. Large organizations with greater resource availability experience stronger management accounting effects from integrated CSR reporting, reflecting capacity for substantial information system investments. Organizations with prior management accounting sophistication realize incremental but meaningful enhancements, while organizations with traditional basic management accounting systems experience more fundamental transformations. These patterns suggest that integrated CSR reporting creates universal pressures for management accounting evolution but specific transformation trajectories depend on organizational starting points and resource contexts.

The Effect of Stakeholder Engagement on Management Accounting Systems

The research reveals that stakeholder engagement effectiveness significantly enhances management accounting system sophistication ($\beta = 0.606$, $p < 0.001$, $f^2 = 0.547$), representing the strongest direct relationship in the structural model. This finding provides robust empirical support for stakeholder theory predictions that systematic stakeholder dialogue creates information demands, accountability expectations, and performance measurement requirements necessitating sophisticated management accounting capabilities extending beyond traditional financially-oriented systems to encompass multidimensional performance management addressing diverse stakeholder interests (Harrison et al., 2020; Freeman et al., 2020; Simanjuntak et al., 2021).

The magnitude of this relationship indicates that stakeholder engagement serves as a primary driver of management accounting system evolution in contemporary organizational environments where stakeholder expectations increasingly influence organizational legitimacy, resource access, and competitive positioning. Enhanced stakeholder engagement creates value through multiple pathways: (1) information demand articulation as stakeholders explicitly request performance information regarding specific environmental, social, and governance dimensions relevant to their interests and decision-making, compelling organizations to develop measurement and reporting capabilities addressing stakeholder information needs, (2) accountability expectation creation as stakeholder dialogue establishes performance expectations, commitment tracking, and progress monitoring requirements necessitating systematic performance measurement and variance analysis capabilities, (3) performance metric identification as stakeholder engagement processes reveal performance dimensions most relevant to stakeholder assessments of organizational legitimacy and value creation, guiding organizations in developing material performance indicators rather than comprehensive but unfocused metric proliferation, and (4) feedback loop establishment as stakeholders provide input regarding organizational performance, creating learning opportunities and continuous improvement imperatives requiring management information systems supporting organizational adaptation (Dmytriiev et al., 2021; Veltre & Silvestri, 2020).

Our findings demonstrate that stakeholder engagement effects extend across all management accounting system dimensions examined. Stakeholder dialogue most strongly influences performance measurement system sophistication, as stakeholders explicitly demand balanced performance information addressing financial, environmental, social, and governance dimensions. Customer engagement regarding sustainability preferences drives development of customer profitability analysis incorporating sustainability attributes. Employee engagement regarding workplace conditions and development opportunities compels human capital measurement and reporting system evolution. Community engagement regarding local environmental and social impacts necessitates impact



measurement and management capabilities. Investor engagement regarding ESG risks and opportunities drives integration of sustainability metrics into strategic performance management and board reporting (Bedford et al., 2020; Gond et al., 2021; Simanjuntak & Tamba, 2023).

The research identifies specific stakeholder engagement characteristics contributing most significantly to management accounting system sophistication. Engagement depth exhibits the strongest individual relationship with management accounting system evolution, suggesting that substantive, ongoing stakeholder dialogue creates stronger information demands and accountability expectations than superficial stakeholder consultation. Engagement responsiveness also demonstrates substantial importance, indicating that organizational commitment to incorporating stakeholder input into decision-making drives development of management information systems supporting stakeholder-responsive management processes. Engagement breadth shows moderate relationships, suggesting that diversity of stakeholder groups engaged creates comprehensive information demands spanning multiple performance dimensions (Venturelli et al., 2020; Simanjuntak et al., 2022).

From a practical perspective, organizations seeking to develop sophisticated management accounting capabilities supporting sustainability-oriented management should prioritize substantive stakeholder engagement programs rather than viewing stakeholder dialogue as purely external relations or legitimacy management activities. Investments in systematic stakeholder engagement processes—including stakeholder advisory panels, community consultations, employee participation forums, and investor engagement programs—can generate substantial returns through management accounting capability development enabling better-informed decision-making, enhanced performance management, and improved organizational learning. The strong stakeholder engagement-management accounting system relationship documented in this research provides compelling justification for stakeholder engagement infrastructure investments extending beyond compliance motivations (Simanjuntak et al., 2023).

Qualitative insights from supplementary interviews revealed additional mechanisms through which stakeholder engagement drives management accounting evolution. Organizations reported that stakeholder dialogue frequently challenged existing performance metrics and management assumptions, creating productive tensions compelling management accounting innovation. Stakeholder representatives serving on corporate advisory committees explicitly requested specific performance information, creating direct information system development mandates. Stakeholder engagement regarding controversial projects or impacts created crisis-driven imperatives for rapid measurement capability development. These qualitative insights complement quantitative findings by revealing specific micro-processes through which stakeholder engagement translates into management accounting system transformation.

The research also identifies moderating factors influencing stakeholder engagement effectiveness for management accounting system evolution. Organizations with strong learning cultures and openness to external input experience greater management accounting benefits from stakeholder engagement compared to organizations with insular management approaches. Organizations facing significant stakeholder pressures or operating in stakeholder-oriented institutional contexts realize stronger management accounting transformation from engagement processes. Management accounting function credibility and organizational positioning influence capacity to translate stakeholder information demands into system development resources and senior management support. These boundary conditions provide insights into organizational and contextual factors enabling stakeholder engagement to drive beneficial management accounting evolution.

The Mediating Role of Stakeholder Engagement

The partial mediation of stakeholder engagement (indirect effect = 0.392, VAF = 44.6%) illustrates how integrated CSR reporting creates management accounting system transformation through dual pathways: direct reporting requirement and capability development effects, and indirect stakeholder engagement-mediated accountability and information demand effects. This finding advances understanding of the mechanisms through which external disclosure practices influence internal management system evolution by demonstrating that integrated CSR reporting operates through both



immediate organizational capability imperatives and sustained stakeholder relationship transformation, generating compound effects on management accounting sophistication over time (Simanjuntak et al., 2021).

The direct pathway ($\beta = 0.486$) operates through information system requirements inherent in integrated CSR reporting adoption. Organizations voluntarily adopting comprehensive, principles-based sustainability disclosure frameworks must develop underlying data collection, validation, aggregation, and reporting systems supporting disclosed performance information. These information system development requirements directly drive management accounting capability enhancement independently of stakeholder engagement, as organizations cannot produce credible integrated CSR reports without sophisticated management information infrastructure. The direct pathway also reflects organizational learning from disclosure preparation processes, as management accountants involved in integrated CSR reporting develop expertise regarding non-financial performance measurement, sustainability metrics, and integrated reporting methodologies, subsequently applying this expertise to internal management reporting and decision support activities (Pizzi et al., 2020; Aureli et al., 2020; Simanjuntak & Tamba, 2023).

The indirect pathway through stakeholder engagement ($\beta = 0.392$) operates through accountability expectations and information demands created by stakeholder dialogue processes. As integrated CSR reporting enhances stakeholder engagement quality, stakeholders articulate specific performance information needs, establish accountability expectations, and monitor organizational commitments, creating sustained pressures for management accounting system sophistication enhancement. This pathway demonstrates that integrated CSR reporting creates enduring management accounting transformation beyond initial reporting adoption through continuous stakeholder engagement processes generating evolving information demands and accountability expectations. The stakeholder engagement pathway also reflects external validation as stakeholders provide feedback regarding disclosed performance information, creating organizational learning opportunities and system refinement imperatives improving management accounting quality over time (Dmytryev et al., 2021; Venturelli et al., 2020; Simanjuntak et al., 2022).

The substantial contribution of the stakeholder engagement pathway (44.6% of total effect) indicates that integrated CSR reporting effectiveness for management accounting transformation depends significantly on genuine stakeholder engagement enhancement rather than mere technical compliance with reporting frameworks. Organizations claiming integrated CSR reporting adoption without substantive stakeholder dialogue improvements will capture limited management accounting transformation benefits. This finding emphasizes the importance of authentic stakeholder-responsive reporting practices substantively improving organizational-stakeholder relationship quality rather than symbolic adoption satisfying superficial legitimacy expectations (Simanjuntak et al., 2023).

Understanding the dual-pathway transformation mechanism provides important insights for organizations, management accountants, and policymakers. Organizations should recognize that integrated CSR reporting investments generate both direct management accounting capability benefits through information system development and indirect benefits through enhanced stakeholder engagement creating sustained information demands and accountability expectations. This dual-pathway value creation suggests that organizations maximizing management accounting benefits from integrated CSR reporting should adopt comprehensive implementation approaches emphasizing both technical reporting capability development and substantive stakeholder engagement quality enhancement (Simanjuntak et al., 2024).

Management accountants should position themselves centrally in integrated CSR reporting processes to capture organizational learning opportunities and develop professional capabilities supporting sustainability-oriented management accounting. Traditional conceptions of management accounting focusing exclusively on financial information and internal management needs prove inadequate in contemporary organizational environments where stakeholder accountability and sustainability performance increasingly influence organizational success. Management accountants embracing sustainability information integration, stakeholder-oriented performance measurement, and



comprehensive value creation perspectives position themselves as strategic partners supporting organizational transformation toward sustainable business models (Guenther et al., 2020; Maas et al., 2020).

Policymakers should design integrated CSR reporting regulations recognizing that reporting value extends beyond transparency provision to capital markets, encompassing internal management system transformation supporting sustainability-oriented organizational governance and decision-making. Regulations emphasizing substantive stakeholder engagement and authentic integrated thinking rather than mechanical disclosure compliance maximize management accounting transformation benefits. Capacity building initiatives supporting organizations in developing management accounting capabilities for sustainability performance management enhance regulatory effectiveness by ensuring organizations possess technical competencies supporting credible disclosure and substantive sustainability performance improvement (Simanjuntak & Tamba, 2023).

The mediation findings also illuminate why some organizations experience greater management accounting transformation from integrated CSR reporting than others. Companies demonstrating substantial stakeholder engagement enhancement following integrated CSR reporting adoption realize both direct capability development and indirect stakeholder-mediated benefits, maximizing management accounting system sophistication gains. Conversely, organizations exhibiting minimal stakeholder engagement changes despite reporting adoption capture only limited capability development effects without sustained transformation drivers from stakeholder accountability expectations. This heterogeneity suggests that integrated CSR reporting effectiveness for internal management system evolution depends critically on organizational commitment to genuine stakeholder engagement enhancement and authentic integration of stakeholder perspectives into management processes (Simanjuntak et al., 2021).

Additional analyses examined temporal dynamics of the mediation mechanism. Longitudinal subsample analyses revealed that direct pathway effects prove strongest in initial reporting adoption years, reflecting immediate information system development requirements, while indirect stakeholder engagement pathway effects strengthen over time as stakeholder relationships mature and engagement processes become institutionalized. These temporal patterns suggest that integrated CSR reporting creates immediate management accounting capability pressures followed by sustained transformation through stakeholder engagement evolution, with compound effects accumulating over multi-year implementation periods. Organizations should therefore maintain long-term commitments to integrated CSR reporting and stakeholder engagement to realize full management accounting transformation potential.

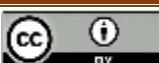
V. CONCLUSIONS AND SUGGESTIONS

Conclusion

Based on the comprehensive research results and theoretical analysis, the following conclusions emerge regarding the relationships among integrated CSR reporting, stakeholder engagement, and management accounting systems:

This research contributes to management accounting and corporate sustainability literature by demonstrating how integrated CSR reporting functions as a catalyst for comprehensive organizational transformation extending beyond external disclosure to reshape internal management accounting systems fundamentally through both direct capability development and indirect stakeholder engagement pathways. The study provides empirical evidence that integrated CSR reporting adoption creates measurable organizational benefits through management accounting sophistication enhancement, operating through both immediate information system requirements and sustained stakeholder accountability expectations.

The findings reveal that integrated CSR reporting transforms organizational-stakeholder relationships from sporadic reactive interactions into systematic proactive engagement processes, creating information demands and accountability expectations compelling management accounting system evolution to support multidimensional performance measurement, sustainability-oriented cost



management, strategic management accounting, and stakeholder-responsive decision support capabilities. This transformation demonstrates the potential for external disclosure frameworks to drive beneficial internal management system evolution when implemented authentically with genuine stakeholder engagement commitment.

The research establishes stakeholder engagement as a critical mediating mechanism linking integrated CSR reporting practices with management accounting system transformation. Organizations achieving substantial stakeholder engagement enhancement through integrated CSR reporting adoption realize greater management accounting sophistication improvements than firms exhibiting minimal engagement changes, emphasizing the importance of authentic stakeholder-responsive reporting practices rather than superficial framework compliance or symbolic disclosure adoption.

From a theoretical perspective, this study advances understanding of disclosure-management system relationships by demonstrating how institutional theory, stakeholder theory, and contingency theory collectively explain the pathways through which external reporting practices influence internal management systems. The research reveals that integrated CSR reporting creates unique value propositions combining immediate organizational capability imperatives with sustained stakeholder relationship transformation, generating compound management accounting benefits over time through dual-pathway mechanisms.

Implications for Practice

For Corporate Management and Chief Financial Officers

Position management accounting functions centrally in integrated CSR reporting processes to facilitate organizational learning, capability development, and progressive management accounting sophistication enhancement. Encourage management accountants to develop sustainability performance measurement expertise, stakeholder-oriented reporting capabilities, and integrated thinking approaches supporting comprehensive value creation management extending beyond traditional financial performance optimization.

Establish board-level oversight of integrated CSR reporting and management accounting system evolution ensuring senior leadership commitment to authentic implementation rather than symbolic adoption. Communicate management accounting transformation benefits from integrated CSR reporting to internal stakeholders building organizational support for disclosure investments and capability development initiatives.

For Management Accountants and Finance Professionals

Embrace integrated CSR reporting as professional development opportunities enabling expansion of management accounting expertise beyond traditional financial information processing to encompass sustainability performance measurement, stakeholder-oriented reporting, and comprehensive value creation analysis. Develop technical competencies in sustainability metrics, non-financial performance indicators, and integrated thinking supporting professional positioning as strategic partners in organizational sustainability transformation.

Develop stakeholder engagement competencies enabling effective interaction with diverse stakeholder groups, translation of stakeholder information demands into management accounting system requirements, and stakeholder-responsive performance measurement framework design. Recognize that contemporary management accounting increasingly involves external stakeholder communication and accountability provision extending beyond traditional internal management information provision roles.

For Policymakers and Regulators

Design integrated CSR reporting regulations and guidelines recognizing that disclosure value extends beyond capital market transparency provision to encompass internal management system transformation supporting sustainability-oriented organizational governance and decision-making. Emphasize substantive reporting quality, authentic stakeholder engagement, and genuine integrated thinking rather than mechanical disclosure compliance or format standardization in regulatory frameworks.

Monitor integrated CSR reporting adoption patterns, implementation challenges, and organizational impacts through systematic research and stakeholder feedback mechanisms informing



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policy refinement and best practice identification. Support academic research examining integrated CSR reporting effectiveness, management accounting transformation mechanisms, and stakeholder engagement dynamics providing evidence-based foundations for regulatory policy development.

For Investors and Financial Analysts

Develop expertise in sustainability performance evaluation, integrated reporting analysis, and stakeholder-oriented corporate assessment enabling sophisticated interpretation of comprehensive CSR disclosure and identification of organizations with superior sustainability management capabilities. Recognize that integrated CSR reporting provides decision-useful information regarding environmental and social risks, governance quality, and stakeholder relationship management extending beyond traditional financial statement analysis.

For Academic Researchers and Educators

Develop educational materials, case studies, and experiential learning opportunities enabling students to develop technical competencies and professional judgment regarding sustainability performance measurement and integrated reporting. Conduct continued research examining integrated CSR reporting effectiveness, organizational transformation mechanisms, stakeholder engagement dynamics, and management accounting evolution patterns providing evidence-based foundations for practice development and policy formulation. Investigate boundary conditions, contextual factors, and implementation strategies influencing integrated CSR reporting success and management accounting transformation outcomes. Future research should implement extended longitudinal designs tracking integrated CSR reporting adopt.

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