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IT GRC Maturity on Organizational Performance and Financial Reporting Quality: A Systematic Review

Sakia Putri Samsul[1], Muchriana Muchran[2], Ramly[3]
[1-3] Master of Accounting Program, Muhammadiyah University, Makassar, Indonesia
Corresponding author: sakiaputrisamsul@gmail.com

ABSTRACT

This systematic literature review synthesizes extant research to elucidate the relationship between Information Technology Governance, Risk, and Compliance (IT GRC) maturity and its impacts on organizational performance and financial reporting quality. Guided by the PRISMA framework, the review analyzes 22 publications from 2021–2025. The findings reveal that IT GRC maturity significantly enhances organizational performance, primarily mediated through improved internal control effectiveness and strategic alignment, leading to superior financial and operational outcomes. Furthermore, it directly elevates financial reporting quality by mitigating material weaknesses and constraining earnings management, thereby strengthening financial integrity. The synthesis constructs an integrated framework demonstrating that mature IT GRC acts as a critical socio-technical determinant, translating governance structures into tangible value. However, the review identifies that these benefits are contingent upon overcoming integration challenges related to strategic alignment and human capital. The study concludes by recommending a holistic approach that synchronizes technology, processes, and skilled personnel, and highlights key avenues for future empirical research to further delineate these complex relationships.

Keywords: *IT GRC Maturity, Organizational Performance, Financial Reporting Quality, Internal Control, Strategic Alignment*

1. INTRODUCTION

Modern organizations operate amid rapid digital transformation and intensifying regulatory pressures, where technologies like AI, cloud computing, and blockchain reshape governance and control systems. These shifts elevate the importance of high-quality financial reporting as both a compliance necessity and a strategic tool for credibility and trust [1], [2]. In response, firms increasingly rely on Information Technology Governance, Risk, and Compliance (IT GRC) frameworks to integrate digital oversight with performance goals. As organizations strive to turn compliance into strategic value, the maturity of IT GRC practices emerges as a key factor influencing both organizational performance and financial reporting quality.

The study focuses on four central constructs. IT GRC is an integrated framework aligning IT, governance, risk, and compliance to ensure technology supports strategy and regulation. IT GRC Maturity reflects how advanced and embedded these practices are, evolving from basic controls to strategic alignment [3]. Organizational Performance captures financial, operational, and strategic outcomes like profitability, efficiency, and innovation [4]. Financial Reporting Quality (FRQ) emphasizes reliable, accurate, and compliant reporting that enhances transparency and trust [5]. Together, these constructs explain how IT GRC maturity can strengthen both performance and reporting integrity.

IT GRC maturity is theorized to improve financial reporting quality through stronger controls and data integrity, and to enhance organizational performance by optimizing processes and mitigating risks [6], [7]. Together, these effects can create a virtuous cycle, where reliable reporting builds trust that fuels better decision-making and performance. However, this relationship is

complex, advanced IT GRC systems involve significant costs, and excessive control can reduce flexibility and hinder innovation. Thus, organizations must balance governance discipline with agility to realize the full benefits of IT GRC maturity.

Emerging technologies like AI and blockchain are transforming governance and control systems, highlighting the need for an integrated view that links compliance with strategic performance. Yet, existing research on IT GRC maturity, organizational performance, and financial reporting quality remains fragmented, with outcomes varying by industry, size, and governance design [8], [9], [10], [11]. This creates a gap in understanding how IT GRC maturity influences performance and reporting integrity.

This Systematic Literature Review (SLR) aims to collect, analyze, and synthesize existing studies on how IT GRC maturity affects organizational performance and financial reporting quality. It seeks to build an integrated framework that explains these relationships, identify key themes and gaps in the literature, and highlight areas where further research is needed. Beyond theory, the review provides practical insights for organizations on how strengthening IT GRC can enhance both governance and reporting effectiveness, ultimately contributing to better decision-making and long-term value creation. Consequently, to empirically investigate the pathways and specific outcomes of IT GRC maturity, this research is guided by the following two objectives:

1. To analyze the mediating role of internal control effectiveness and strategic alignment in the relationship between IT GRC maturity and organizational performance (financial and operational).
2. To examine the impact of IT GRC maturity on financial reporting quality, with a specific focus on its ability to mitigate material weaknesses and reduce earnings management.

2. LITERATURE REVIEW

This review was conducted following the PRISMA framework [12].

2.1 Article Search Strategy

The primary search for relevant literature was executed using the Google Scholar database. To manage references and streamline the citation process, Zotero reference management was employed. The search was confined to publications from the past five years (2021–2025) to ensure the analysis reflects the current technological and regulatory landscape. A structured keyword string was developed using Boolean operators. The core search query was:

("IT GRC" OR "IT Governance Risk Compliance") AND ("maturity" OR "capability") AND ("organizational performance" OR "firm performance" OR "business performance") AND ("financial reporting quality" OR "earnings quality" OR "financial disclosure").

2.2 Article Selection Criteria

Studies were evaluated against predetermined inclusion and exclusion criteria:

a. Publication Period
    1. Inclusion: Studies published between 2021 and 2025.
    2. Exclusion: Studies published before 2019.
b. Publication Type
    1. Inclusion: Peer-reviewed journal articles only.

2. Exclusion: Books, book chapters, editorials, theses, dissertations, non-peer-reviewed materials, grey literature, and conference proceedings.

c. Language
   1. Inclusion: Articles written in English or Bahasa.
   2. Exclusion: Articles written in any other language.

d. Topic Relevance
   1. Inclusion: Studies that empirically or conceptually examine IT GRC maturity and its relationship with organizational performance and/or financial reporting quality.
   2. Exclusion: Studies that focus solely on generic GRC, IT governance, risk, or compliance in isolation, without a maturity perspective or without linking to the specified outcomes.

e. Access
   1. Inclusion: Full text must be accessible.
   2. Exclusion: Full text is unavailable.

2.3 Article Selection Process

The article selection process followed the sequential stages outlined in the PRISMA flow diagram (Figure 1). The initial database search yielded 348 records. After removing 47 duplicates, 301 unique records underwent title and abstract screening. This screening excluded 253 records for not meeting the inclusion criteria, primarily due to irrelevance to the core research themes. The remaining 48 articles proceeded to the full-text review stage. Upon detailed assessment, 26 articles were excluded. Consequently, 22 studies met all criteria and were included in the qualitative synthesis for this systematic review:

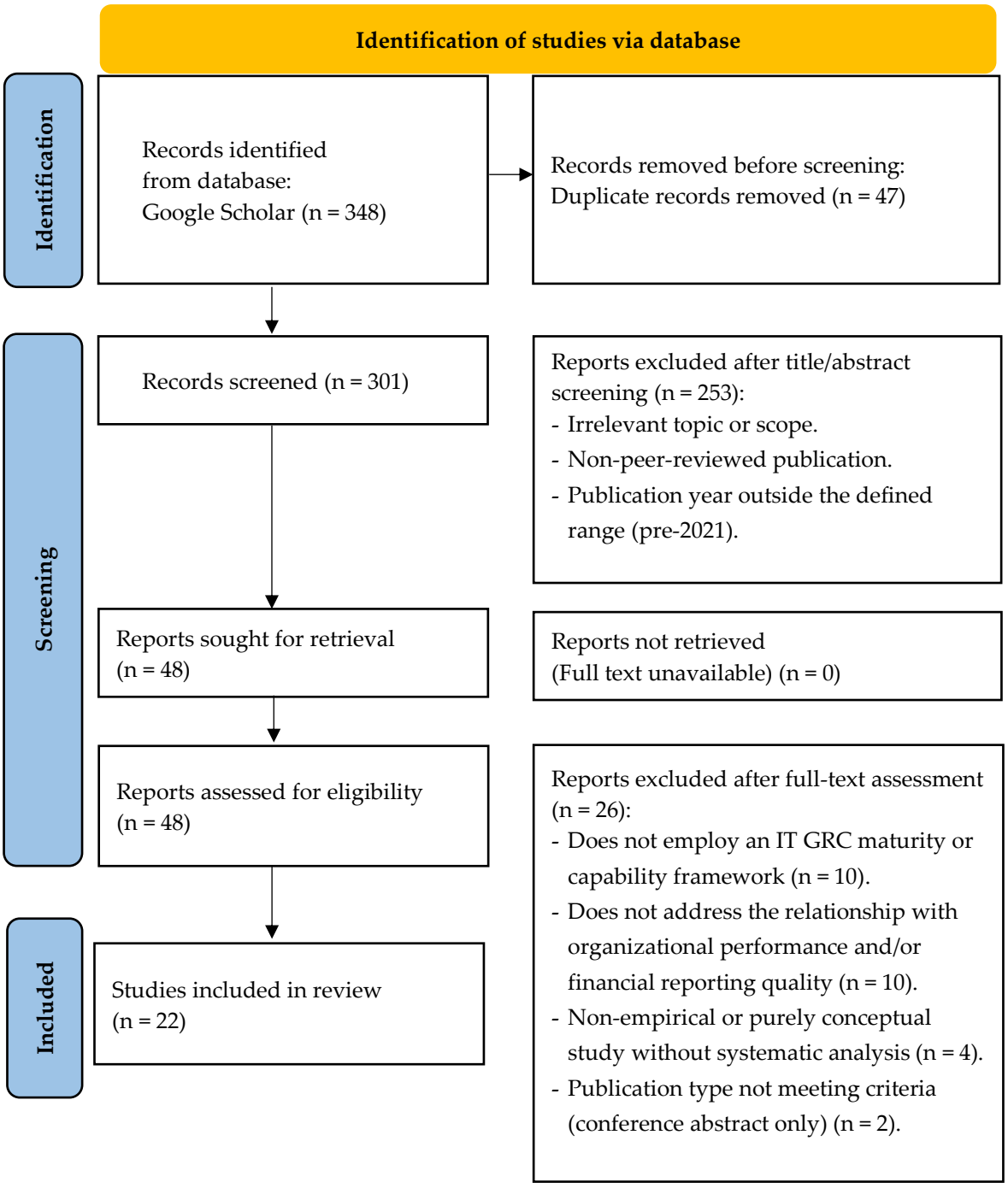

Figure 1. PRISMA flow diagram of the article selection (Source: PRISMA 2020 Flow Diagram)

2.4 Data Collection and Data Analysis

Data from the final 22 included articles were systematically extracted into a standardized matrix. Findings were thematically grouped and analyzed to identify convergent patterns, divergent perspectives, and theoretical gaps pertaining to (1) the mediating mechanisms through which IT GRC maturity influences organizational performance, and (2) the direct and indirect pathways by which it affects financial reporting quality as presented in table 2:

Table 1. Data Extraction from 23 journal articles

Num.	Study ID	Research Method and Sample	Key Findings
1.	GRC Automation in Manufacturing: Modernizing Compliance and Risk Management [13]	**Method:** Technical/Conceptual article. Presents a framework based on literature and industry analysis. **Sample:** Analysis of existing literature, reports, and compliance challenges, with a focus on the manufacturing sector (e.g., India).	Identifies key technical components and integration points (ERP, MES, HSE) for successful implementation.
2.	Governance, risk, and compliance maturity level: Optimizing XX LLC performance achievement [14]	**Method:** Qualitative case study, document analysis, interviews. **Sample:** XX LLC (Indonesian state-owned plantation subsidiary). 8 department heads interviewed.	XX LLC achieved a proactive GRC maturity level (94.5%), but improvements are needed in strategy dissemination, stress testing, innovation, and HR planning. People aspect (HR) had the lowest maturity.
3.	The Effect of Governance, Risk, Compliance (GRC) And Intellectual Capital On Company Value Through Financial Performance [15]	**Method:** Quantitative. Partial Least Squares (PLS) using SmartPLS 4. **Sample:** Secondary data from annual reports of banking companies listed on the Indonesia Stock Exchange (IDX), 2021-2023. Purposive sampling.	GRC had **no significant effect** on financial performance (ROA) or firm value (Tobin's Q).
4.	Investigating the Role of Governance, Risk, and Compliance (GRC) in Investment Outcomes through Digital Transformation in Saudi Context [16]	**Method:** Quantitative. Survey-based, using a self-administered questionnaire. **Sample:** 103 respondents (senior managers, risk/compliance/IT officers) from Saudi financial companies. Purposive sampling.	- GRC and Digital Transformation (DT) both had a **significant positive influence** on investment outcomes. - Strong positive correlations were found between DT & Investment Outcomes (r=0.834), GRC & Investment Outcomes (r=0.721), and GRC & DT (r=0.55). - Integrating GRC frameworks with digital transformation enhances investor confidence and financial performance.
5.	Analisis Maturitas dan Kerangka Governance, Risk, And Compliance (GRC) Upaya Peningkatan Pendapatan Asli Daerah atas Pengelolaan Kekayaan yang Dipisahkan di Provinsi DKI Jakarta: Studi Kasus PT. Bank DKI Tahun 2018-2022 [17]	**Method:** Qualitative descriptive approach. **Sample:** PT Bank DKI (2018-2022). Data from observations, interviews, and documentation.	1. GRC maturity across Process, People, and Tools aspects varied, averaging at **Level 3 (Managed)**. 2. Local revenue (PAD) fluctuated significantly due to lack of comprehensive GRC implementation. 3. Several governance aspects (process and people) require improvement to enhance revenue stability.
6.	A Strategic Framework for Integrated	**Method:** Conceptual analysis, literature review, case study.	Telkom has strong GRC and ESG foundations but faces integration

	Governance, Risk, and Compliance (GRC) and Sustainability at Telkom Indonesia [18]	**Sample:** Telkom Indonesia (Indonesian state-owned telecommunications company).	challenges (data fragmentation, regulatory complexity). An integrated GRC-Sustainability framework is proposed, emphasizing leadership, data governance, ESG risk integration, compliance, and culture. AI and centralized platforms are key enablers.
7.	Assessing organizational governance maturity in technical audits criteria development for the Tanzanian context [19]	**Method:** Mixed-methods sequential approach. Literature review, questionnaire survey, exploratory factor analysis, and the Analytic Hierarchy Process (AHP). **Sample:** Survey of 128 respondents from 7 technical audit functions in Tanzania (regulatory bodies, audit offices, implementing agency). AHP input from 9 technical audit experts.	1. Developed a localized framework with 55 criteria across 5 main constructs to assess Organizational Governance Maturity (OGM) for technical audit functions in Tanzania. 2. AHP-derived weights for the 5 main constructs: Technical Audit Standards & Methodology (0.375) was most important, followed by Human Resource & Professional Development (0.302), Organization & Management (0.211), Communication & Stakeholders' Management (0.073), and Technical Audit Mandate (0.039). 3. Applied to a case study (National Audit Office of Tanzania), yielding a total OGM score of 3.147/5 (63%), placing it at **Level 4: Managed Organizational Governance**. Two constructs (Organization & Management; Communication & Stakeholders' Management) were near but below Level 4.
8.	Redefining Governance, Risk, and Compliance (GRC) in the Digital Age: Integrating AI-Driven Risk Management Frameworks [20]	**Method:** Conceptual/review article. **Sample:** Not empirical; analysis based on literature and theoretical framework.	1. AI (ML, NLP, knowledge graphs, automation) enhances GRC through **predictive risk scoring, real-time compliance monitoring, and intelligent automation**. 2. A **hybrid human-AI GRC architecture** balances efficiency with ethical governance. 3. Key challenges include **algorithmic bias, explainability, regulatory uncertainty, and data privacy**.
9.	Corporate Values: Governance, Risk, Compliance (GRC) and Leverage [21]	**Method:** Quantitative panel data regression. **Sample:** 11 Islamic commercial banks in Indonesia (2018-2022), 55 observations.	1. **GRC and leverage** significantly affect corporate value simultaneously. 2. Board of Directors and Sharia Supervisory Board **negatively** affect corporate value; Audit Committee and leverage **positively** affect it.

			3. Firm size and age significantly influence corporate value; profitability does not.
10.	Effect of GRC and Intellectual Capital on Company Performance [22]	**Method:** Quantitative. Multiple linear regression analysis using SPSS. **Sample:** Secondary data from 30 companies that won the Top GRC Award in Indonesia in 2019 and 2020.	- GRC had a **significant positive effect** on company performance (ROA). - Intellectual Capital (IC) had a **significant positive effect** on company performance (ROA). - Together, GRC and IC explained 50.7% of the variance in company performance.
11.	An integrated GRC approach to combating fraud in microloan services [23]	**Method:** Quantitative (Confirmatory Factor Analysis, XGBoost predictive modeling). **Sample:** Employee data from Bank X (2017-2019): 28,004 workers (2017-18), 27,274 (2019).	1. **Pressure** (from Fraud Triangle theory) is the dominant factor influencing fraud in microloan services. 2. An AI-enhanced GRC model can effectively predict fraud risk and classify employees by risk level. 3. Integrating data analytics into GRC improves fraud detection and enables proactive prevention.
12.	Exploring the maturity of integrating digital and sustainable capabilities in manufacturing supply chains: an in-depth evaluation using grey influence analysis [24]	**Method:** Multi-method approach combining Grey-Decision Making Trial and Evaluation Laboratory (Grey-DEMATEL) with an Importance-Performance Map Analysis (IPMA). **Sample:** Input from 15 experienced industry professionals (e.g., managers, engineers, consultants) in Indian manufacturing supply chains.	1. Identified 17 critical factors for integration maturity, with "Top management commitment and strategic vision," "Green and smart manufacturing practices," and "Transparent and traceable supply chain" being the most influential. 2. The "**cause**" **group** (drivers) includes strategic and cultural factors like top management commitment and a data-driven culture. The "**effect**" **group** (outcomes) includes performance metrics like social and environmental impact. 3. The IPMA reveals a significant "**performance gap**"; while factors like top management commitment are important, their current implementation performance is low, indicating a key area for managerial focus.
13.	Integration of GRC and ESG in Hospital Risk Management and Its Impact On Sustainability [25]	**Method:** Qualitative literature study. **Sample:** Theoretical analysis of hospitals and healthcare organizations (no primary data).	GRC and ESG integration improves holistic risk management, regulatory compliance, operational sustainability, and reputation in hospitals. Benefits include better waste management, resource efficiency, employee well-being, and stakeholder trust.
14.	Performance Evaluation of Public Companies in the Wawowonua Region,	**Method:** Qualitative. Descriptive analysis using interviews and documentation.	- The company's overall performance was evaluated as **good** across financial,

	South Konawe Regency [26]	**Sample:** Management and staff of the Wawowonua Regional Public Company (Perumda) in South Konawe Regency, Indonesia. Data from 2021-2023.	operational, and administrative perspectives. - The implementation of GRC showed **progress and development** over the period, particularly in improving internal supervision (SPI) and HR management awareness, though it was not fully optimal initially.
15.	Governance, risk, compliance and controlling: Institutional, cultural and instrumental interdependencies from a German perspective [27]	**Method:** Empirical survey, regression analysis. **Sample:** 247 German companies (diverse sectors, sizes) surveyed in November 2021.	Decision-oriented risk management linked to controlling leads to higher economic success. Compliance-oriented GRC hinders decision integration. Risk openness, cultural alignment, and controlling maturity are critical for GRC² (GRC + Controlling) effectiveness.
16.	Digital Financial Reporting: Analysis of the Quality of Cyber Security Visualization and Disclosure in Investor Relations of Government Banks [28]	**Qualitative descriptive method** with content analysis. Sample: **Four Indonesian state-owned banks** (BRI, BNI, BTN, Bank Mandiri) from 2022–2024. Data: Investor relations websites, annual reports, cybersecurity disclosures.	- All banks show strong financial performance and cybersecurity commitment (NIST, ISO 27001, CSIRT teams). - Transparency in cybersecurity disclosure varies: BTN and Mandiri provide more details than BRI and BNI. - Financial reporting is comprehensive but lacks interactive visualization and real-time cybersecurity metrics. - Opportunities exist to enhance digital reporting and cyber transparency for investor confidence.
17.	Automated Financial Reporting and Enhancement of Efficiency of Accounts [29]	**Mixed-methods** (quantitative and qualitative). Quantitative analysis used the **Industrial Robotics and Automation Dataset** (Kaggle) with **Python and Tableau**. Qualitative analysis involved literature review and industry reports. Sample: Manufacturing, Healthcare, Logistics sectors (2015–2023).	- Automation improves accounting efficiency, accuracy, and real-time reporting. - Healthcare (39.9%) and Manufacturing (37.7%) lead in robot adoption. - Automation increases productivity but also displaces jobs (positive correlation between robots adopted and jobs displaced). - Key challenges include workforce adaptation, data security, and regulatory compliance.
18.	Analisis Aparat Pengawasan Intern Pemerintah Terhadap Kualitas Laporan Keuangan Pemerintah Daerah Se-Indonesia [30]	**Method:** Quantitative, Partial Least Squares (PLS) with WarpPLS **Sample:** 508 district and city governments in Indonesia (2018–2021), total 2,032 observations	- APIP capability, SPIP maturity, and follow-up on audit recommendations each positively affect local government financial report quality. Simultaneously, all three variables together significantly improve financial report quality.

19.	The Role of Intelligent ERP Systems in Preventing Corporate Fraud and Strengthening Financial Governance [31]	**Method:** Mixed-method (quantitative survey + qualitative interviews/case studies) **Sample:** 212 professionals across finance, auditing, ERP roles; 10 case studies; multiple industries (manufacturing, financial services, telecom, public sector)	- Intelligent ERP adoption reduces fraud incidents, detection time, and financial losses significantly. - Key features: real-time monitoring, AI anomaly detection, automated audit trails enhance transparency and internal control. - Challenges include high implementation costs, integration issues, and staff resistance.
20.	Analysis of Factors that Affecting the Integrity of Financial Statements [32]	**Method:** Quantitative, multiple linear regression (SPSS) **Sample:** 102 manufacturing companies listed on IDX (2019–2021), purposive sampling	- Institutional ownership, managerial ownership, and audit committee positively affect financial statement integrity. - Independent commissioners, leverage, and KAP size do not significantly affect financial statement integrity.
21.	Integrating ESG Risks into Control and Reporting: Evidence from Practice in Sweden [33]	**Method:** Qualitative interview-based case study. **Sample:** In-depth interviews with 14 practitioners (sustainability managers, controllers, auditors) from 9 large, listed Swedish corporations.	Identifies a **three-stage maturity model** for ESG risk integration: **(a) Ad-hoc** (informal, separate from finance), **(b) Systematic** (structured processes, parallel to financial risks), and **(c) Integrated** (fully embedded in ERM and reporting). Highlights **key challenges**: defining material ESG risks, quantifying them, and a lack of standardized reporting frameworks, leading to varied practices across companies.
22.	Strong Control Environment the Main Pillar of Internal Audit in State-Owned Enterprises [34]	**Exploratory multiple case study** design. Sample: **Four Indonesian SOEs** in industrial and service sectors. Data: Semi-structured interviews with 18 informants (directors, managers, staff), document review, observation.	SOEs have implemented control environments but with inconsistencies across business segments.

3. METHODS

This review followed a structured evidence-synthesis workflow designed to be transparent and reproducible. Searches targeted studies that quantitatively separate or attribute the effects of

4. RESULTS AND DISCUSSION

This section presents a synthesis of the findings from 22 reviewed journal articles. The results are organized into two primaries, interconnected thematic categories that elucidate the role of Information Technology Governance, Risk, and Compliance (IT GRC) maturity. The first theme explores the mediating mechanisms through which IT GRC maturity influences broader organizational performance, while the second theme examines its direct and indirect impact on the quality of financial reporting. Together, these categories provide a comprehensive framework for understanding how matured IT GRC capabilities serve as a critical determinant of both operational efficacy and financial integrity.

4.1 The Mediating Mechanisms of IT GRC Maturity in Organizational Performance

The mature integration of Information Technology within Governance, Risk, and Compliance (IT GRC) frameworks acts as a critical mediating mechanism that translates structured governance into enhanced organizational performance. This is primarily achieved by automating compliance processes and enabling data-driven decision-making. For instance, the automation of GRC processes in manufacturing can drastically reduce compliance monitoring time and improve real-time risk detection [13], while the integration of AI and centralized platforms is identified as a key enabler for overcoming data fragmentation and enhancing efficiency in integrated frameworks [18], [20]. Furthermore, a mature IT GRC environment facilitates the seamless incorporation of other strategic assets. It strengthens the positive impact of Digital Transformation on investment outcomes [16] and enhances the effectiveness of Intellectual Capital, with studies showing that GRC and IC together significantly explain variances in company performance [15], [22]. The mediating role is also evident in specialized functions, such as using AI-enhanced GRC models for predictive fraud detection in financial services [23] and establishing structured technical audit criteria that solidify governance maturity [19].

The mediating efficacy of IT GRC maturity is contingent upon addressing key human and strategic integration challenges within the organization. The maturity level itself is a multidimensional construct, where deficiencies in the "People" aspect, such as strategy dissemination, HR planning, and professional development, can significantly hinder overall GRC effectiveness and, consequently, organizational outcomes, even when technical components are in place [14], [17], [21]. This underscores that technology alone is insufficient; its mediating power is fully realized only when supported by strong organizational and management structures, clear communication, and skilled human resources [19]. Therefore, the mechanism through which IT GRC maturity influences performance is not merely technical but socio-technical, requiring a balanced hybrid human-AI architecture [20] and integrated oversight to mitigate risks like algorithmic bias and to ensure that governance processes directly contribute to strategic goals such as revenue stability and firm value [15], [17].

4.2 The Impact of IT GRC Maturity on Financial Reporting Quality

Based on the synthesized literature, the maturity of IT Governance, Risk, and Compliance (IT GRC) frameworks demonstrably influences the quality and reliability of financial reporting through multiple interconnected channels. A robust and mature GRC environment, characterized by strong internal control systems and strategic integration with corporate objectives, serves as the foundational pillar for accurate reporting [34]. The effectiveness of this environment is significantly enhanced by the adoption of advanced digital technologies. For instance, intelligent ERP systems equipped with AI-driven real-time monitoring and automated audit trails directly strengthen financial governance by reducing fraud incidents, accelerating detection, and improving transactional transparency [31]. This technological enablement aligns with findings that a decision-oriented and risk-open GRC culture, particularly when integrated with controlling functions (GRC^2), fosters better economic outcomes and supports more reliable decision-making processes, which are critical for accurate financial reporting [27]. Furthermore, the maturity of internal government oversight apparatus (APIP) and internal control systems (SPIP) has been empirically shown to correlate positively with higher-quality financial statements and more favorable audit opinions in the public sector, underscoring the direct link between control maturity and reporting integrity [30].

The integration of non-financial risks, particularly Environmental, Social, and Governance (ESR) factors, into the GRC framework represents a critical evolution that impacts comprehensive reporting quality. Research indicates that embedding ESG considerations into risk management and internal control mechanisms moves organizations from ad-hoc to integrated maturity stages, thereby ensuring that sustainability risks are systematically identified, managed, and reported alongside traditional financial risks [25], [33]. This holistic integration not only mitigates risks but also enhances the transparency and completeness of corporate disclosures. However, achieving this maturity faces

challenges, including performance gaps where key drivers like top management commitment are recognized as important but underperforming in practice [24], and a lack of standardized frameworks for quantifying and reporting ESG risks [33]. Consequently, while mature IT GRC facilitates more automated, accurate, and real-time financial reporting [29], its full potential in assuring high-quality, integrated reports is contingent upon overcoming these implementation hurdles and achieving a seamless fusion of financial and non-financial risk governance.

4.3 Recommendations and Implications for Future Research

The synthesis of extant literature underscores that IT GRC maturity functions as a pivotal, yet complex, socio-technical determinant of organizational performance and financial reporting quality. Consequently, future research should prioritize three interconnected avenues. First, given the mediating role of human and organizational factors, studies must adopt more nuanced theoretical frameworks to empirically investigate how leadership commitment, cross-functional communication, and workforce competency interact with technological components to enable or constrain GRC effectiveness. Second, as the integration of ESG risks into GRC frameworks emerges as a critical evolution, there is a pressing need for developmental research to create and validate standardized metrics for assessing and reporting ESG-related control maturity, and to examine how such integration quantitatively impacts both financial statement quality and broader stakeholder trust. Finally, to enhance generalizability, longitudinal and cross-sectoral comparative studies are recommended to explore how the GRC-performance relationship varies across industries, regulatory environments, and stages of digital transformation, particularly focusing on the long-term value implications of advanced AI-driven GRC architectures. Collectively, advancing these lines of inquiry will move the field beyond establishing correlation towards a more granular, prescriptive understanding of how organizations can orchestrate technology, processes, and people to achieve resilient governance and assured financial integrity.

5. CONCLUSION

This systematic review establishes that Information Technology Governance, Risk, and Compliance (IT GRC) maturity constitutes a critical, multidimensional determinant of organizational efficacy and financial integrity. The synthesized evidence reveals that mature IT GRC functions not as a mere technical enabler but as a complex socio-technical mediator, translating structured governance into enhanced performance through automated compliance, data-driven decision-making, and the amplification of strategic assets like digital transformation and intellectual capital. Concurrently, it directly fortifies financial reporting quality by strengthening internal controls, enabling real-time monitoring, and providing the foundational architecture for integrating non-financial Environmental, Social, and Governance (ESR) risks. However, the realization of these benefits is inherently contingent upon overcoming profound human and organizational integration challenges; deficiencies in strategic alignment, professional development, and managerial oversight can significantly attenuate the positive impacts of even sophisticated technological infrastructures. Therefore, achieving superior organizational and reporting outcomes necessitates a holistic, integrated approach that harmoniously aligns technological capabilities, robust processes, and skilled human agency within a coherent governance strategy.

REFERENCES

[1] H. Han, R. K. Shiwakoti, R. Jarvis, C. Mordi, and D. Botchie, "Accounting and auditing with blockchain technology and artificial Intelligence: A literature review," *International Journal of Accounting Information Systems*, vol. 48, p. 100598, Mar. 2023, doi: 10.1016/j.accinf.2022.100598.

[2] A. Kuntoro, "The Role of Digital Accounting in Transforming Corporate Finance in the Modern Era," *thejoas*, vol. 2, no. 2, pp. 723–733, Feb. 2025, doi: 10.59613/7jvvrr53.

[3] Aida Makaš, "Governance, risk and compliance frameworks applicability in the organizations," *Int. J. Sci. Res. Arch.*, vol. 10, no. 2, pp. 716–724, Dec. 2023, doi: 10.30574/ijsra.2023.10.2.1024.

[4] K. F. Anuar, N. Mohd Zainudin, M. A. Fauzi, and M. H. Mohd Hussain, "A Review: Organizational Performance and its Impact on Project Efficiency, Business Success, and Future-Readiness," *J. Adv. Res. Bus. Manage. Stud.*, vol. 39, no. 1, pp. 40–52, June 2025, doi: 10.37934/arbms.39.1.4052.

[5] R. Marota, "Investor's Decisions on Financial Reporting: Merger, Aquisition and Consolidation," *ATESTASI*, vol. 7, no. 2, pp. 1344–1361, Sept. 2024, doi: 10.57178/atestasi.v7i2.1022.

[6] A. Ajrina, Y. Hazmi, B. A. Farisi, and N. Mauliza, "Implementation of an Accounting Information System Improving the Quality of Financial Reporting," *account. Fin.*, vol. 2, no. 03, pp. 160–165, July 2024, doi: 10.58812/esaf.v2i03.294.

[7] C. P. Efunniyi, Angela Omozele Abhulimen, Anwuli Nkemchor Obiki-Osafiele, Olajide Soji Osundare, Edith Ebele Agu, and Ibrahim Adedeji Adeniran, "Strengthening corporate governance and financial compliance: Enhancing accountability and transparency," *Financ. account. res. j.*, vol. 6, no. 8, pp. 1597–1616, Aug. 2024, doi: 10.51594/farj.v6i8.1509.

[8] O. O. Abiodun, T. T. Siyanbola, and A. A. Aderibigbe, "Corporate Governance and Financial Reporting Quality," *IJEBMR*, vol. 08, no. 09, pp. 155–163, 2024, doi: 10.51505/IJEBMR.2024.8910.

[9] S. Oduro, A. De Nisco, and G. Mainolfi, "Do digital technologies pay off? A meta-analytic review of the digital technologies/firm performance nexus," *Technovation*, vol. 128, p. 102836, Dec. 2023, doi: 10.1016/j.technovation.2023.102836.

[10] O. M. Radu, V. D. Dragomir, and N. Hao, "Company-Level Factors of Non-Financial Reporting Quality under a Mandatory Regime: A Systematic Review of Empirical Evidence in the European Union," *Sustainability*, vol. 15, no. 23, p. 16265, Nov. 2023, doi: 10.3390/su152316265.

[11] G. Zennaro, G. Corazza, and F. Zanin, "The effects of integrated reporting quality: a meta-analytic review," *MEDAR*, vol. 32, no. 7, pp. 197–235, Dec. 2024, doi: 10.1108/MEDAR-09-2023-2175.

[12] M. J. Page *et al.*, "The PRISMA 2020 statement: an updated guideline for reporting systematic reviews," *Syst Rev*, vol. 10, no. 1, p. 89, Dec. 2021, doi: 10.1186/s13643-021-01626-4.

[13] A. Awasthi, "GRC Automation in Manufacturing: Modernizing Compliance and Risk Management," *IJCET*, vol. 16, no. 1, pp. 784–793, Jan. 2025, doi: 10.34218/IJCET_16_01_063.

[14] L. W. Ayurini and N. Wijayati, "Governance, risk, and compliance maturity level: Optimizing XX LLC performance achievement," *Intenational. J. financial account. management*, vol. 7, no. 1, pp. 15–26, June 2025, doi: 10.35912/ijfam.v7i1.2184.

[15] N. Afriyani, K. Kamaliah, and N. Indrawati, "The Effect of Governance, Risk, Compliance (GRC) And Intellectual Capital On Company Value Through Financial Performance," *GRDIS*, vol. 5, no. 2, pp. 282–299, Apr. 2025, doi: 10.52970/grdis.v5i2.954.

[16] M. Alhamami and W. S. Alruwaili, "Investigating the Role of Governance, Risk, and Compliance (GRC) in Investment Outcomes through Digital Transformation in Saudi Context," *EJSD*, vol. 14, no. 3, p. 953, Oct. 2025, doi: 10.14207/ejsd.2025.v14n3p953.

[17] M. A. Ningrat, D. Suwanda, and T. Huseno, "Analisis Maturitas dan Kerangka Governance, Risk, And Compliance (GRC) Upaya Peningkatan Pendapatan Asli Daerah atas Pengelolaan Kekayaan yang Dipisahkan di Provinsi DKI Jakarta: Studi Kasus PT. Bank DKI Tahun 2018-2022," *jmeb*, vol. 4, no. 2, pp. 514–524, May 2024, doi: 10.37481/jmeb.v4i2.747.

[18] M. S. Liza, "A Strategic Framework for Integrated Governance, Risk, and Compliance (GRC) and Sustainability at Telkom Indonesia," *JSER*, vol. 7, no. 1, Oct. 2025, doi: 10.54783/jser.v7i1.992.

[19] G. C. Haule, J. M. Matindana, and G. S. Mwaluko, "Assessing organizational governance maturity in technical audits: criteria development for the Tanzanian context," *Manag. Syst. Eng.*, vol. 4, no. 1, p. 15, Sept. 2025, doi: 10.1007/s44176-025-00050-5.

[20] E. A. Odedina, "Redefining Governance, Risk, and Compliance (GRC) in the Digital Age: Integrating AI-Driven Risk Management Frameworks," *World J. Adv. Eng. Technol. Sci.*, vol. 10, no. 1, pp. 264–282, Oct. 2023, doi: 10.30574/wjaets.2023.10.1.0257.

[21] M. Muslih and A. Meynisa, "Corporate Values: Governance, Risk, Compliance (GRC) and Leverage," *JRAK*, vol. 16, no. 2, pp. 265–274, Oct. 2024, doi: 10.23969/jrak.v16i2.14480.

[22] S. Al Habsyi, H. Suharman, and S. Handoyo, "Effect of GRC and Intellectual Capital on Company Performance," *JRAK*, vol. 13, no. 2, pp. 106–112, Oct. 2021, doi: 10.23969/jrak.v13i2.4130.

[23] H. Supriyadi, D. S. Priyarsono, N. A. Achsani, and T. Andati, "An integrated GRC approach to combating fraud in microloan services," *ijirss*, vol. 7, no. 4, pp. 1580–1591, Aug. 2024, doi: 10.53894/ijirss.v7i4.3457.

[24] S. Govardhan, B. E. Narkhede, R. Raut, V. Kumar, and S. Ghoshal, "Exploring the maturity of integrating digital and sustainable capabilities in manufacturing supply chains: an in-depth evaluation using grey influence analysis," *International Journal of Productivity and Performance Management*, vol. 74, no. 9, pp. 3032–3055, Nov. 2025, doi: 10.1108/IJPPM-07-2024-0439.

[25] R. M. B. Gunawan, "Integration of GRC and ESG in Hospital Risk Management and Its Impact On Sustainability," *Eduvest*, vol. 4, no. 11, pp. 10179–10190, Nov. 2024, doi: 10.59188/eduvest.v4i11.1522.

[26] N. M. Arief, N. Dali, E. Hadisantoso, Safaruddin, and A. M. Vira, "Performance Evaluation of Public Companies in the Wawowonua Region, South Konawe Regency," presented at the The 7th International Conference on Religious and Cultural Sciences and International Community Service, 2025. [Online]. Available: https://journals.oneresearch.id/index.php/increcs/article/view/242

[27] W. Gleißner and P. Ulrich, "Governance, risk, compliance and controlling: Institutional, cultural and instrumental interdependencies from a German perspective," *COC*, vol. 22, no. 2, p. 41, July 2025, doi: 10.22495/cocv22i2art4.

[28] I. P. I. Andhika, I. N. S. P. Jayantika, A. A. B. S. A. Putra, and G. A. S. Perkasa, "Digital Financial Reporting: Analysis of the Quality of Cyber Security Visualization and Disclosure in Investor Relations of Government Banks," *Journal of Social Sciences and Cultural Study*, vol. 2, no. 3, pp. 82–90, 2025.

[29] Rakibuzzaman, T. R. Akash, J. Reza, and M. A. Alam, "Automated Financial Reporting and Enhancement of Efficiency of Accounts," *JEFAS*, vol. 7, no. 1, pp. 80–92, Feb. 2025, doi: 10.32996/jefas.2025.7.1.7.

[30] A. S. Ramadhan and H. Wijaya, "Analisis Aparat Pengawasan Intern Pemerintah Terhadap Kualitas Laporan Keuangan Pemerintah Daerah Se-Indonesia," *liabilitas*, vol. 10, no. 2, pp. 51–72, Aug. 2025, doi: 10.54964/liabilitas.v10i2.494.

[31] S. Shiwakoti, "The Role of Intelligent ERP Systems in Preventing Corporate Fraud and Strengthening Financial Governance," *J. Knowl. Learn. Sci. Technol.*, vol. 4, no. 3, pp. 138–147, Aug. 2025, doi: 10.60087/jklst.vol4.n3.014.

[32] R. A. Yuniawati, "Analysis of Factors that Affecting the Integrity of Financial Statements," *Jurnal Ekonomi*, vol. 12, no. 03, pp. 1073–1083, 2023.

[33] J. Crawford and F. Nilsson, "Integrating ESG Risks into Control and Reporting: Evidence from Practice in Sweden," in *Handbook of Big Data and Analytics in Accounting and Auditing*, T. Rana, J. Svanberg, P. Öhman, and A. Lowe, Eds., Singapore: Springer Nature Singapore, 2023, pp. 255–277. doi: 10.1007/978-981-19-4460-4_12.

[34] S. Natsir, M. R. Arif, M. Arsyad, A. N. Amin, and F. Azzahrah, "Strong Control Environment the Main Pillar of Internal Audit in State-Owned Enterprises," *JIAKES*, vol. 13, no. 5, pp. 1175–1186, Oct. 2025, doi: 10.37641/jiakes.v13i5.3790.