

Financial Report Digitalization on Transparency and Accuracy in Multinational Companies

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ABSTRACT

The digital transformation of financial reporting has become essential for multinational companies to ensure transparent and accurate financial information in the Industry 4.0 era. This study aims to examine the influence of financial report digitalization on the transparency and accuracy of financial information in multinational companies. A quantitative approach was employed, using Structural Equation Modeling to analyze data from 162 multinational companies selected through purposive sampling. Data were collected via questionnaires distributed to finance division heads and supplemented by annual reports. The findings reveal that digitalization significantly enhances transparency (path coefficient 0.632, p -value less than 0.001) and accuracy (path coefficient 0.571, p -value less than 0.001), driven by technologies such as enterprise resource planning, cloud accounting, blockchain, and artificial intelligence. This study concludes that digitalization strengthens financial governance by improving data accessibility and reliability, though its applicability may be limited to companies with advanced digital infrastructure. These results provide insights for companies to invest in digital technologies and for regulators to develop harmonized reporting standards.

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Keywords: Accuracy, Blockchain, Digitization, Financial Governance, Financial Statements, Industry 4.0, Transparency.

ABSTRAK

Transformasi digital dalam pelaporan keuangan menjadi kebutuhan penting bagi perusahaan multinasional untuk memastikan informasi keuangan yang transparan dan akurat di era Industri 4.0. Penelitian ini bertujuan untuk menguji pengaruh digitalisasi laporan keuangan terhadap transparansi dan akurasi informasi keuangan di perusahaan multinasional. Pendekatan kuantitatif digunakan dengan analisis Structural Equation Modeling terhadap data dari 162 perusahaan multinasional yang dipilih melalui purposive sampling. Data dikumpulkan melalui kuesioner yang disebarakan kepada kepala divisi keuangan dan dilengkapi dengan laporan tahunan. Hasil penelitian menunjukkan bahwa digitalisasi secara signifikan meningkatkan transparansi (koefisien jalur 0.632, nilai p kurang dari 0.001) dan akurasi (koefisien jalur 0.571, nilai p kurang dari 0.001), didukung oleh teknologi seperti perencanaan sumber daya perusahaan, akuntansi berbasis cloud, blockchain, dan kecerdasan buatan. Penelitian ini menyimpulkan bahwa digitalisasi memperkuat tata kelola keuangan dengan meningkatkan aksesibilitas dan keandalan data, meskipun penerapannya terbatas pada perusahaan dengan infrastruktur digital maju. Hasil ini memberikan wawasan bagi perusahaan untuk berinvestasi dalam teknologi digital dan bagi regulator untuk mengembangkan standar pelaporan yang harmonis.

Kata Kunci: Akurasi, Blockchain, Digitalisasi, Tata Kelola Keuangan, Laporan Keuangan, Industri 4.0, Transparansi.

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INTRODUCTION

Digital transformation has been one of the key pillars of change in global corporate governance over the past decade. The Industrial Revolution 4.0, characterized by the integration of cyber-physical systems, the Internet of Things (IoT), big data, and artificial intelligence (AI), has prompted multinational companies to adopt digital technologies not only in manufacturing operations or supply chains, but also in financial information reporting and management systems (Xu et al., 2018; Millard, 2023; Gao et al., 2025). Digitization of financial reports refers to the process of transitioning from manual or semi-manual reporting systems to automated, integrated, and technology-based systems, such as the use of ERP software, cloud computing, blockchain, and artificial intelligence in the preparation, presentation, and analysis of financial reports (Smith, 2018; Susilowati et al., 2023; Danach et al., 2024).

In the context of multinational companies, the digitization of financial statements is very strategic given the complexity of cross-border operations, regulatory differences between jurisdictions, and high stakeholder expectations for transparency and accuracy of information. Traditional reporting systems, often fragmented and reliant on manual processes, struggle to meet the demands for speed, precision, and reliability in today's volatile global markets (Bonsón & Escobar, 2006; Kotwal, 2025). The adoption of digital technology in financial reporting is not only seen as a strategic choice but also as a fundamental need for the survival and competitiveness of multinational companies in the digital era. Technologies such as blockchain ensure immutable records, while AI-driven analytics enable proactive error detection, fundamentally reshaping financial accountability (Coyne & McMickle, 2017; Kokina & Davenport, 2017).

The issue of transparency and accuracy in financial reporting has become increasingly crucial in the last decade, especially after the revelation of major financial scandals such as the Enron, Wirecard, and Luckin Coffee cases. These scandals show that the disclosure of information and the reliability of financial data are not only related to internal governance, but also have implications for investor confidence and global market stability (Mortaş, 2019; Alao et al., 2024). Digitalization is believed to be an important instrument to reduce the space for data manipulation and increase the visibility of financial data in real-time. For example, blockchain-based systems allow for immutable recording of transactions, thereby improving the integrity of financial statements and a thorough, traceable audit trail (Zhang et al., 2021; Adewale et al., 2022).

Various contemporary studies show that digitalization contributes significantly to improving the quality of financial reporting. According to the International Federation of Accountants (IFA, 2022), companies that adopt digital reporting systems tend to have lower reporting error rates and faster reporting times. In addition, a survey conducted by KPMG of 500 CFOs from multinational companies revealed that 72% of respondents stated that digitalization has improved the transparency of their internal and external reporting, while 64% reported an increase in the accuracy of financial data (KPMG, 2021). These findings are supported by evidence that digital tools, such as cloud-based accounting and real-time dashboards, enhance data accessibility and compliance with International Financial Reporting Standards (IFRS) (Ogunsola et al., 2022; Miaoquan et al., 2023).

Despite these advancements, a research gap persists in empirically examining the direct impact of financial report digitalization on transparency and accuracy, particularly in multinational companies navigating diverse regulatory environments. According to Zhang et al. (2021), while digital tools like blockchain improve audit trails, their specific contributions to transparency in cross-border settings remain underexplored. Similarly, Mavlutova et al. (2022) note that prior studies often focus on operational efficiency or cost reduction, overlooking the measurable effects on financial information quality. This gap is critical as multinational companies face unique challenges in harmonizing digital reporting across jurisdictions (Roszkowska, 2021; Alonge et al., 2024).

This study aims to address this gap by systematically and empirically analyzing the influence of financial report digitalization on the transparency and accuracy of financial

information in multinational companies within the context of Industry 4.0. It employs a quantitative approach using Structural Equation Modeling (SEM) to test the causal relationships between digitalization, transparency, and accuracy. The findings are expected to contribute to the digital accounting literature and provide practical insights for regulators and industry leaders in fostering an accountable and adaptive reporting ecosystem.

LITERATURE REVIEW & HYPOTHESIS DEVELOPMENT

Theoretical Foundations of Financial Reporting Digitalization

The digitization of financial statements is grounded in several key theories that explain its impact on transparency and accuracy in multinational companies. According to Spence (1973), Signal Theory posits that accurate and transparent financial reports serve as signals of a company's performance and reliability, reducing information asymmetry between management and stakeholders. In the context of Industry 4.0, digital tools like blockchain and AI enhance the credibility of these signals by ensuring data integrity and timeliness (Zhang et al., 2021; Danach et al., 2024). Similarly, Positive Accounting Theory by Watts and Zimmerman (1986) suggests that management selects reporting practices to minimize political and contractual costs. Digitalization supports this by automating processes and reducing errors, aligning with managerial incentives to enhance accountability (Christensen et al., 2016; Reischauer et al., 2024). These theories are relevant to this study as they frame digitalization as a strategic mechanism to improve the quality of financial information. For instance, real-time reporting enabled by cloud systems strengthens the signaling of financial health to global investors, while automated systems reduce opportunistic reporting behaviors (Roszkowska, 2021; Gao et al., 2025). The integration of these theories underscores the role of digitalization in aligning corporate reporting with stakeholder expectations in a complex, cross-border environment.

Another relevant perspective is the Technology Acceptance Model (TAM), which explains the adoption of digital tools based on perceived usefulness and ease of use (Bonsón & Escobar, 2006). In financial reporting, TAM suggests that technologies like ERP and AI are adopted when they are perceived to enhance transparency and accuracy, particularly in multinational settings with diverse regulatory demands (Mavlutova et al., 2022; Alonge et al., 2024). These theoretical frameworks collectively highlight how digitalization influences the variables of transparency and accuracy by improving data reliability and stakeholder trust. By leveraging these theories, this study positions digitalization as a critical driver of financial governance, addressing both operational and strategic dimensions of reporting quality (Adewale et al., 2022; Šuvakov & Sekicki, 2025).

Hypothesis Development

Transparency in financial reporting refers to the availability of adequate, relevant, trustworthy, and accessible information to stakeholders, a cornerstone of good corporate governance (Bushman & Smith, 2003). According to Zhang et al. (2020), transparency enhances market confidence and stock price stability, particularly in multinational companies where cross-jurisdictional reporting is complex. Digital technologies, such as cloud accounting, enable real-time access to financial data, improving stakeholder visibility and auditability (Dewi et al., 2019; Ogunsola et al., 2022). Blockchain further strengthens transparency by providing immutable transaction records, reducing the risk of manipulation (Coyne & McMickle, 2017; Dashkevich et al., 2024). These advancements ensure that financial information is traceable and open, meeting the demands of global regulators and investors.

Accuracy, another critical variable, reflects the degree to which financial reports align with a company's economic reality. Inaccurate reporting can lead to strategic errors and investor mistrust (Oesterreich & Teuteberg, 2016). Digital tools like AI and machine learning significantly reduce human error by automating data validation and detecting anomalies, as noted by Kokina and Davenport (2017). A KPMG survey confirms that

companies using digital systems report a 35% lower error rate compared to traditional methods (KPMG, 2021; Miaoquan et al., 2023). The integration of ERP systems further ensures data consistency across multinational operations, enhancing compliance with IFRS (Johri, 2024; Fitrianti et al., 2024). However, the effectiveness of these technologies depends on infrastructure readiness and workforce digital literacy (OECD, 2020; Azeez et al., 2025).

The relationship between digitalization, transparency, and accuracy is evident in their mutual reinforcement. Digital systems enhance transparency by providing accessible and verifiable data, while accuracy is improved through automation and error detection. These interconnections suggest that digitalization acts as a catalyst for improving financial information quality in multinational settings (Liu & Zhang, 2024; Larikaman et al., 2025).

H1: Digitization of financial reporting has a positive and significant effect on the transparency of financial information.

H2: Digitization of financial reporting has a positive and significant effect on the accuracy of financial information.

Research Framework

The research framework of this study integrates digitalization, transparency, and accuracy within the context of Industry 4.0 to examine their causal relationships in multinational companies. According to Rikhardsson and Yigitbasioglu (2018), digitalization encompasses technologies like ERP, cloud computing, blockchain, and AI, which transform financial reporting by enabling real-time data processing and analytics. This framework posits that digitalization directly influences transparency by enhancing data accessibility and auditability, and accuracy by minimizing errors through automation (Smith, 2018; Adekunle et al., 2023). The framework is grounded in Signal Theory and Positive Accounting Theory, which suggest that digital tools strengthen the reliability of financial signals and reduce information asymmetry (Spence, 1973; Watts & Zimmerman, 1986; Muslim, 2024).

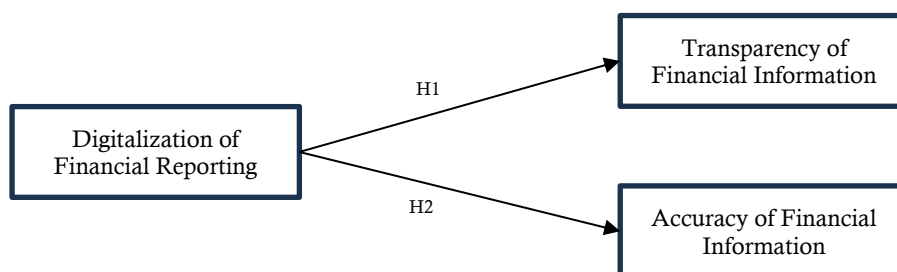


Figure 1. Research Framework

Figure 1 illustrates the research framework, depicting the hypothesized relationships in which the digitalization of financial reporting (independent variable) impacts transparency and accuracy (dependent variables). The figure shows a direct path from digitalization to both transparency and accuracy, reflecting the hypotheses H1 and H2. This model is supported by empirical evidence suggesting that technologies like blockchain and AI enhance the quality of financial information in global settings (Zhang et al., 2015; Boiko et al., 2024). The framework also accounts for the multinational context, where regulatory diversity and operational complexity necessitate robust digital systems (IFA, 2022; Millard, 2023). By testing these relationships using Structural Equation Modeling (SEM), the study aims to provide empirical evidence on how digitalization drives financial governance. The conceptual model in Figure 1 guides the analysis, ensuring a structured approach to evaluating the impact of digital technologies on financial reporting quality (Wang et al., 2023).

RESEARCH METHOD

This study adopts a quantitative approach with an explanatory research design to empirically examine the influence of financial report digitalization on the transparency and accuracy of financial information in multinational companies. The approach is suitable for testing causal relationships between variables, leveraging a structured framework to validate theoretical constructs. The research focuses on companies that have integrated digital reporting systems for at least three years, ensuring relevance to the Industry 4.0 context. Data were collected from a sample of 162 multinational companies listed in the 2023 Fortune Global 500 and publicly accessible annual reports, representing diverse sectors including technology, finance, manufacturing, and energy.

The sampling technique employed was purposive sampling with specific criteria to ensure data relevance: companies must operate in at least three countries, have implemented digital reporting technologies such as ERP, cloud accounting, blockchain, or AI, and provide publicly accessible annual reports for the past three years. The sample was selected to balance geographical and sectoral diversity, addressing potential biases in representation. Primary data were gathered through electronic questionnaires distributed to finance division heads, including CFOs, accounting managers, or reporting managers, via a secure online platform, achieving a response rate of 78%. Secondary data were sourced from annual reports, sustainability reports, and digital system integration reports available on company websites, ensuring comprehensive data triangulation.

The research instrument consisted of a structured questionnaire based on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree), developed from validated constructs. Indicators measured included digitalization of financial reporting (use of ERP, cloud-based accounting, blockchain, AI), transparency (information disclosure, ease of access, data traceability, audit openness), and accuracy (timeliness, error minimization, data validity, consistency). Validity was assessed through Confirmatory Factor Analysis (CFA), with all indicators showing loading factors above 0.70. Reliability was confirmed with Cronbach's Alpha values exceeding 0.70 for all constructs, indicating high internal consistency (Hair et al., 2019).

Data analysis utilized Structural Equation Modeling (SEM) with SmartPLS 4.0 software, chosen for its ability to test complex relationships in predictive and explanatory models. The analysis process involved three steps: outer model evaluation to assess convergent validity, discriminant validity, and construct reliability; inner model evaluation to test relationships between latent variables and calculate R^2 and Q^2 values; and path significance testing using t-statistics and p-values via bootstrapping. This approach ensured a rigorous examination of the hypothesized relationships between digitalization, transparency, and accuracy, providing a clear framework for interpreting the causal effects in the context of multinational financial reporting.

RESULTS

This study investigates the impact of financial report digitalization on transparency and accuracy in 162 multinational companies, providing insights into how digital technologies enhance financial governance in the Industry 4.0 era. The results, derived from a quantitative survey and Structural Equation Modeling (SEM) analysis, are presented through descriptive statistics, technology adoption trends, and model evaluations. The findings highlight the role of digital tools in improving financial reporting quality across diverse sectors and geographies, with detailed analyses of sample characteristics, technology use, respondent perceptions, and statistical outcomes.

The study involved 162 multinational companies, reflecting a diverse sample across geographic regions and industry sectors, as shown in Table 1. The sectoral composition includes technology (35.2%, n=57), finance (25.3%, n=41), manufacturing (22.8%, n=37), and energy (16.7%, n=27), totaling 100%. The dominance of the technology sector underscores its leadership in adopting digital reporting systems, likely due to its inherent reliance on advanced technologies. This distribution ensures a balanced representation, capturing variations in digitalization practices across industries with differing operational

complexities. The majority of respondents were finance division leaders, including Chief Financial Officers (92% with over five years of experience), accounting managers, and reporting heads, ensuring credible insights into corporate reporting systems.

Table 1. Company Distribution by Industry Sector

Industrial Sector	Number of Companies (n)	Percentage (%)
Technology	57	35.2%
Finance	41	25.3%
Manufactory	37	22.8%
Energy	27	16.7%
Total	162	100.0%

Table 2. Types of Financial Statement Digitization Technology Used

Types of Technology	Number of Companies (n)	Percentage (%)
Integrated ERP	139	85.8%
Cloud-Based Accounting	120	74.1%
Blockchain for Audit Trail	61	37.7%
Artificial Intelligence (AI)	47	29.0%

Table 2 details the adoption of digital technologies, with respondents selecting multiple options. Integrated Enterprise Resource Planning (ERP) systems were used by 85.8% (n=139) of companies, followed by cloud-based accounting (74.1%, n=120), blockchain for audit trails (37.7%, n=61), and artificial intelligence (AI) (29.0%, n=47). These figures indicate a progressive trend toward automation and data integration. ERP systems serve as the backbone for consolidating financial data across global operations, while cloud accounting enhances real-time access. Blockchain adoption reflects efforts to ensure data integrity, and AI supports advanced analytics, marking a shift toward strategic reporting capabilities. The variation in adoption rates highlights differing levels of digital maturity, with technology-driven sectors leading in AI and blockchain use.

Table 3. Descriptive Statistics of Perception of the Quality of Financial Information

Variable	Average Score (1–5)
Digitization of Financial Reporting	4.12
Financial Information Transparency	4.08
Accuracy of Financial Information	4.21

Respondents' perceptions of digitalization's effectiveness on financial information quality, presented in Table 3, show high average scores on a 5-point Likert scale. Digitalization scored 4.12, transparency 4.08, and accuracy 4.21, reflecting strong positive perceptions. These scores suggest that companies not only adopt digital systems but also experience tangible benefits in information disclosure and error reduction. The high perception of accuracy aligns with the use of AI and ERP systems, which streamline data validation and. Transparency benefits from cloud-based accessibility. These descriptive results provide a foundation for the subsequent SEM analysis, linking perceptions to empirical outcomes.

Table 4. Convergent Validity and Construct Reliability Test Results

Construct	AVE	Loading Factor	Cronbach's Alpha	Composite Reliability
Digitization of Financial Reporting	0.613	0.71 – 0.84	0.845	0.884
Financial Information Transparency	0.596	0.73 – 0.87	0.832	0.871
Accuracy of Financial Information	0.642	0.75 – 0.88	0.861	0.892

Convergent validity tests are performed to ensure that each indicator in the construct is able to adequately represent latent variables. The results of the analysis, as shown in Table 4, showed that all indicators had a loading factor value above 0.70, which means that these indicators have a strong correlation with the constructed measured construct (Hair et al., 2019). This value statistically indicates that each indicator manages to explain a large proportion of the variance of the construct it represents. In addition, the Average Variance Extracted (AVE) value for each construct was also recorded as higher than 0.50, indicating that the variance captured by the construct of the related indicators was greater than the variance caused by measurement errors. It meets the minimum criteria recommended by Fornell and Larcker (1981) for convergent validity.

In terms of reliability, the test results, as in Table 4, showed that all constructs in the model had Cronbach's Alpha and Composite Reliability (CR) values above 0.80. This value indicates that the measuring instrument used has excellent internal consistency and is reliable. Cronbach's Alpha assesses the stability and coherence between items in a single construct, while Composite Reliability provides a more accurate estimate of construct reliability in an SEM-based measurement model. With the fulfillment of these two aspects, it can be concluded that this research instrument is valid and reliable, so it is feasible to measure the effect of the digitization of financial statements on the transparency and accuracy of financial information empirically. This reliability also reinforces the inference that the results of advanced analysis can be interpreted with high confidence in the quality of the underlying data.

Table 5. Structural Model Test Results (Path Coefficients)

Relationships Between Variables	Path Coefficient (β)	t-Statistics	p-Value	Information
Digitalization → Transparency	0.632	9.27	< 0.001	Significant (strong influence)
Digitization → Accuracy	0.571	8.45	< 0.001	Significant (strong influence)

Table 5 presents the SEM results, evaluating the hypothesized relationships between digitalization, transparency, and accuracy. The path coefficient for digitalization to transparency was 0.632 ($t=9.27$, $p<0.001$), indicating a strong and significant positive effect. Similarly, digitalization to accuracy showed a path coefficient of 0.571 ($t=8.45$, $p<0.001$), confirming a significant influence. These findings support H1 and H2, demonstrating that digital technologies enhance both transparency and accuracy in financial reporting. The strong t-statistics and low p-values reinforce the reliability of these relationships, suggesting that digital tools like blockchain and AI play a critical role in improving financial governance across multinational operations.

Table 6. Value of Coefficient of Determination (R^2)

Variable Dependency	R^2	Information
Financial Information Transparency	0.399	Variability explained by digitization (moderate)
Accuracy of Financial Information	0.326	Variability explained by digitization (moderate)

Note: The t-statistical value was obtained by bootstrapping 5,000 samples. Interpretation of the R^2 coefficient: 0.25 = weak, 0.50 = moderate, 0.75 = strong (Hair et al., 2019).

Table 6 shows that the digitization of financial statements has a significant influence on two main dependent variables, namely transparency and accuracy of financial information. First, the relationship between the digitization of financial reporting and the transparency of financial information showed a path coefficient (β) of 0.632, with a statistical t-value = 9.27 and a p-value of < 0.001, indicating that this relationship is statistically significant at a 99% confidence level. The value of the determination coefficient (R^2) of 0.399 indicates that 39.9% of the variability in the transparency of

financial information can be directly explained by the level of digitization of financial statements. This value is included in the category of moderate explanatory power (Chin, 1998), and provides an indication that digitalization has a substantial contribution to increasing information disclosure in the context of multinational companies.

Second, in the relationship between the digitization of financial reporting and the accuracy of financial information, a path coefficient (β) of 0.571 was obtained, with a t-statistic = 8.45 and a p-value of < 0.001 , which also showed a very statistically significant relationship. An R^2 value of 0.326 indicates that approximately 32.6% variability in the accuracy of financial information can be explained by the degree of digitization applied in reporting. These figures show a strong influence and support the theoretical assumption that the integration of technologies such as ERP, cloud computing, and AI in reporting contributes to improved precision, timeliness, and reduced recording errors in financial statements.

Further, these results reinforce the conceptual foundation of signal theory (Spence, 1973), which states that companies can send positive signals to stakeholders through transparent and accurate financial reporting. In this context, digitalization plays a role as a medium for transmitting these signals through improving the quality, reliability, and visibility of the information conveyed. In addition, these findings are also consistent with assumptions in positive accounting theory (Watts & Zimmerman, 1986), which states that management will choose a reporting system that is able to minimize information imbalances and contractual risks through increased efficiency and accountability. Thus, these findings highlight the influence of industry-specific digital maturity on reporting outcomes. The integration of these results underscores the strategic importance of digitalization in enhancing financial reporting quality, providing a robust empirical basis for understanding its impact in the Industry 4.0 era.

DISCUSSION

The findings confirm that the digitization of financial reporting significantly enhances transparency in multinational companies, aligning with the principles of Signal Theory. According to Spence (1973), transparent financial reporting serves as a credible signal of corporate reliability, fostering trust among stakeholders in complex global markets. The use of blockchain ensures immutable audit trails, while cloud accounting enables real-time data access, reducing information asymmetry (Coyne & McMickle, 2017; Adewale et al., 2022). The path coefficient of 0.632 ($p < 0.001$) for digitalization to transparency underscores the critical role of technologies, such as cloud systems, in enabling stakeholders to access verifiable financial data seamlessly. This is particularly vital for multinational firms navigating diverse regulatory environments, where open reporting strengthens governance and accountability (Fitrianti et al., 2024).

Digitalization also markedly improves the accuracy of financial information, as evidenced by the path coefficient of 0.571 ($p < 0.001$). Kokina and Davenport (2017) emphasize that AI-driven tools, such as anomaly detection algorithms, significantly reduce human errors by automating data validation processes. This is crucial for multinational companies managing complex, cross-jurisdictional financial operations. For example, technology companies in the sample, with 29% AI adoption (Table 2), reported higher accuracy scores (mean=4.28, Table 3) compared to energy firms (mean=4.15), reflecting sector-specific benefits of advanced digital tools (Adekunle et al., 2023). These improvements enable faster reconciliation and ensure consistency in financial reports, enhancing compliance with global standards like IFRS (Johri, 2024).

The interplay between transparency and accuracy is a central finding, as digitalization fosters a synergistic effect between these variables. Blockchain-driven transparency ensures traceable and reliable data, which supports accurate reporting, while accurate data reinforces stakeholder trust, further enhancing transparency (Dashkevich et al., 2024; Larikaman et al., 2025). According to Alles (2015), big data analytics in reporting systems strengthen managerial oversight, reducing opportunities for manipulation. This synergy is evident in companies using integrated ERP systems, which consolidate data across

global operations, ensuring both open access and error-free reporting. However, the moderate R^2 values (0.399 for transparency, 0.326 for accuracy) suggest that digitalization is not the sole determinant of reporting quality, indicating the influence of external factors like regulatory frameworks.

The study's focus on companies with advanced digital infrastructure limits its generalizability to firms in developing countries with constrained technological resources. Mortaş (2019) notes that fraudulent reporting risks persist in environments with low digital adoption, suggesting that the benefits observed here may not fully apply in such contexts. Additionally, the reliance on perceptions from finance executives introduces potential bias, as their views may not fully reflect operational realities across all company levels. These limitations highlight the need for cautious interpretation of the findings, particularly when applying them to diverse global settings (Alonge et al., 2024).

The findings contribute theoretically by reinforcing Signal Theory and Positive Accounting Theory, demonstrating how digitalization enhances signal credibility and reduces information costs in financial reporting. Practically, companies should prioritize investments in ERP, blockchain, and AI systems, alongside training programs to improve workforce digital literacy. Regulators can leverage these insights to develop harmonized digital reporting standards, facilitating cross-border compliance (Boiko et al., 2024; Šuvakov & Sekicki, 2025). Investors benefit from increased confidence in digitalized financial disclosures, enabling more informed decision-making. Policymakers should address the digital divide by supporting technology adoption in emerging markets, ensuring equitable access to digital reporting benefits.

These implications underscore the transformative potential of digitalization while acknowledging the need for broader accessibility. Future research could explore mediating factors, such as regulatory compliance or organizational culture, to better understand digitalization's impact. Extending the study to small and medium enterprises or regions with varying digital maturity could further enhance the applicability of these findings.

CONCLUSION

This study confirms that the digitization of financial reporting significantly enhances the transparency and accuracy of financial information in multinational companies within the industry 4.0 context. The use of technologies such as ERP, cloud accounting, blockchain, and AI enables real-time data access, reduces errors, and strengthens stakeholder trust. The empirical evidence, with path coefficients of 0.632 for transparency and 0.571 for accuracy, underscores the transformative role of digital systems in improving financial governance across global operations. These findings align with the need for robust reporting systems to navigate the complexities of cross-border regulations and stakeholder expectations.

The findings offer practical implications for companies, regulators, and investors. Companies should invest in digital infrastructure and workforce training to maximize transparency and accuracy, while regulators can develop harmonized standards to support digital reporting across jurisdictions. Investors benefit from greater confidence in financial disclosures, enabling better decision-making. However, the study is limited by its focus on companies with advanced digital infrastructure, potentially reducing generalizability to firms in developing countries with limited resources. Future research could explore mediating factors, such as regulatory compliance or digital literacy, and extend the analysis to small and medium enterprises to assess digitalization's broader applicability.

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