

Digitalization and Its Impact on Accounting Standard- Setting: A Systematic Review

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Abstract

Purpose: This study aims to explain why and how digitalization influences the global accounting standard-setting process, particularly as emerging technologies introduce complexities that are not fully accommodated by existing regulations.

Method: This research employs a Systematic Literature Review (SLR) using articles published between 2019–2025 obtained from Google Scholar, JSTOR, and Scopus. The selection process followed the PRISMA framework to identify and screen relevant studies related to digitalization and accounting standards.

Results: The findings indicate that technologies such as blockchain, artificial intelligence, cloud computing, and XBRL have significantly transformed accounting recording, reporting, and auditing practices. However, current accounting standards remain limited in addressing key issues, including decentralized data validation, the reliability of AI-based decision models, digital data security, and the recognition of digital assets.

Implications: These results imply that accounting standard-setting institutions, including the IASB, FASB, and IAI, need to formulate adaptive and forward-looking regulations to ensure alignment between technological advancements and fundamental accounting principles.

Novelty: The novelty of this study lies in its integrated analysis that connects technological disruptions with existing regulatory gaps, providing structured recommendations for the future development of accounting standards.

Keywords: digitalisation; accounting standards; blockchain; artificial intelligence; accounting information systems

Abstrak

Tujuan: Penelitian ini bertujuan menjelaskan alasan serta mekanisme bagaimana digitalisasi memengaruhi proses penetapan standar akuntansi global, khususnya ketika perkembangan teknologi menghadirkan kompleksitas yang belum sepenuhnya diakomodasi oleh regulasi yang ada.

Metode: Penelitian ini menggunakan pendekatan Systematic Literature Review (SLR) terhadap artikel terbitan tahun 2019–2025 yang bersumber dari Google Scholar, JSTOR, dan Scopus. Proses seleksi literatur dilakukan melalui tahapan PRISMA untuk memperoleh studi yang relevan.

Hasil: Hasil kajian menunjukkan bahwa teknologi blockchain, artificial intelligence, cloud computing, dan XBRL telah mengubah praktik pencatatan, pelaporan, dan audit akuntansi secara signifikan. Namun, standar akuntansi yang

berlaku masih terbatas dalam merespons isu validasi data terdesentralisasi, keandalan model keputusan berbasis AI, keamanan data digital, serta pengakuan aset digital.

Implikasi: Temuan ini menegaskan pentingnya lembaga penyusun standar, seperti IASB, FASB, dan IAI, untuk merumuskan regulasi yang adaptif dan antisipatif agar selaras dengan perkembangan teknologi.

Kebaruan: Kebaruan penelitian ini terletak pada analisis terintegrasi mengenai disrupti teknologi dan kesenjangan regulasi, disertai rekomendasi terstruktur untuk pengembangan standar akuntansi di masa depan.

Kata kunci: digitalisasi; standar akuntansi; *blockchain*; *artificial intelligence*; sistem informasi akuntansi.

INTRODUCTION

Digital transformation has become a major force reshaping various aspects of life, including the discipline of accounting. The development of technologies such as cloud computing, artificial intelligence (AI), blockchain, and big data analytics has driven significant changes in modern accounting practices (Angelina et al. 2024). These technologies not only alter how organizations record and report transactions but also directly influence accounting standards that have long served as guidelines for preparing reliable and comparable financial statements (Rizka et al. 2024). As digitalization accelerates, the need to update accounting standards becomes increasingly urgent to ensure their relevance to highly digitized practices (Saputra and Kusumastuti 2023).

Digital-based accounting information systems (AIS) have replaced many time-consuming and error-prone manual processes. Automated transaction recording, the use of AI algorithms in auditing, and real-time financial reporting through cloud-based systems have all improved efficiency and transparency (Maulana and Kustiwi 2024). However, this rapid digital innovation also creates a gap between real-world practices and existing accounting regulations. Conventional accounting standards, developed within the context of traditional economies, often fail to accommodate digitally driven practices (Saputri and Fauziyyah 2023).

A concrete example is the use of blockchain technology, which provides decentralized and immutable transaction records. This characteristic challenges fundamental accounting principles such as internal control and data validity, as data are collectively stored across the network (Yuli et al. 2023). Although blockchain's potential in accounting has been widely recognized, international accounting standards such as IFRS and FASB have yet to issue specific regulations governing its use (Burhanuddin 2024). Similar issues arise with cryptocurrencies, which, despite their widespread adoption, continue to generate debates regarding classification, measurement, and accounting treatment (Nazar et al. 2023).

Academic literature in recent years has begun responding to these issues. AI-based accounting automation and big data analytics have shifted the role of accountants from mere record-keepers to strategic analysts (Krisdiyawati and Maulidah 2023). This shift necessitates the development of new standards that address the evolving role of accountants and the need for transparency in technology use (Novianti et al. 2025). A study by Mikro et al., (2024) also highlights the importance of updating audit and financial reporting frameworks to accommodate blockchain-based systems and smart contracts. Nevertheless, most existing studies remain fragmented and have yet to offer a systematic mapping of how digitalization comprehensively affects the accounting standard-setting process.

Furthermore, digital financial reporting using XBRL (eXtensible Business Reporting Language) has become mandatory in many countries. XBRL-based reporting enables real-time and interactive information disclosure but requires adjustments to standards in terms of data structure and financial metadata (Mikro et al. 2024). The system still faces challenges related to data accuracy, interoperability, and algorithmic validity (Lumbanbatu 2021). Reinforcing the urgency of aligning accounting standards with evolving digital reporting technologies. Another critical issue is data security and privacy within digital accounting information systems. With the adoption of cloud computing, corporate financial data are stored on third-party servers, creating new challenges regarding access control, cybersecurity, and the protection of confidential information (Ummah, 2022). In this context, accounting standards must incorporate principles of data protection as part of a credible financial reporting framework (Arsal et al. 2024). Moreover, accounting systems integrated with Internet of Things (IoT) technologies and 5G networks enable automatic, real-time transaction recording but expand the risks of manipulation and violations of fundamental accounting principles.

Standard-setting bodies such as IASB and FASB have begun addressing these issues, although no definitive and widely adopted standards have yet been issued to regulate digital technologies in a comprehensive manner. The IASB, in its (2024) technical research report, indicates that digital assets and AI are priority areas for further review within the IFRS development framework. This reflects the regulatory gap between technological innovation and the speed of regulatory response. If left unaddressed, this gap may undermine the reliability of the global financial reporting system (International Financial Reporting Standards 2024).

In the Indonesian context, digitalization also exerts pressure on financial reporting standards adopted from IFRS. The digital transformation of both public and private sector entities requires the Financial Accounting Standards Board (DSAK) to actively monitor and revise PSAK to align with technology-driven practices. Although several initiatives, such as e-reporting and digital reporting formats, have been introduced, no standard currently provides comprehensive

guidance on the accounting treatment of digital assets, AI, or blockchain (IAI, 2021).

Given these conditions, this study carries significant urgency. There is a clear need to systematically examine how digitalization influences the global accounting standard-setting process. Therefore, this research employs a Systematic Literature Review (SLR) approach to identify, classify, and evaluate scientific studies from the past five years that explore the relationship between digitalization and accounting standards. The SLR method is chosen because it provides a comprehensive and structured overview of a rapidly evolving topic that has not yet been sufficiently synthesized within a unified analytical framework.

The primary objective of this study is to formulate how digital technological innovations have driven paradigm shifts in accounting standard-setting and to identify the emerging challenges faced in the development of such standards. This study also aims to determine areas requiring further attention from regulators, academics, and practitioners. Through its findings, this research seeks to provide evidence-based recommendations that can serve as a reference for updating accounting standards so that they remain relevant and adaptive to digital technological advancements.

However, existing studies on digitalization in accounting largely focus on the operational and technical implications of emerging technologies, such as efficiency gains and automation, while paying limited attention to their broader impact on the accounting standard-setting process. Most prior research remains fragmented and sector-specific, and has not yet provided a systematic and comprehensive analysis of how digital transformation creates regulatory gaps and challenges for accounting standard-setting bodies across different jurisdictions.

METHOD

This study employs a Systematic Literature Review (SLR) approach to examine the impact of digitalization on accounting standard-setting. The SLR method was selected because it enables a structured, transparent, and comprehensive synthesis of existing scientific evidence on a rapidly developing research topic. By applying this approach, the study systematically identifies, evaluates, and integrates relevant academic literature to capture patterns, regulatory challenges, and implications associated with digital transformation in accounting standards.

The literature search was conducted using three major academic databases: Google Scholar, JSTOR, and Scopus. These databases were selected to ensure broad coverage of reputable and peer-reviewed studies in the fields of accounting, financial reporting, and information systems. The search process focused on articles published between 2019 and 2025 to ensure the relevance and

timeliness of the reviewed literature in relation to recent technological developments. The keywords used in the search included combinations of "digitalization in accounting," "accounting standards," "accounting standard-setting," "blockchain and financial reporting," "artificial intelligence in accounting," "cloud computing," and "XBRL-based reporting" (To et al. 2020).

The identification and selection of articles followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework to enhance methodological rigor and transparency. The initial identification stage generated a pool of potentially relevant studies based on title and abstract screening. During the screening phase, duplicate articles were removed, and studies that were not aligned with the research focus were excluded. The remaining articles were assessed in the eligibility stage through full-text review to ensure their relevance to the research objectives and methodological clarity (Arsal et al. 2024).

Articles were included in this review if they explicitly examined the relationship between digital technologies such as blockchain, artificial intelligence, cloud computing, or XBRL and accounting standards or the accounting standard-setting process. The review was limited to peer-reviewed journal articles published within the defined time frame. Studies were excluded if they did not address accounting standards, focused solely on technical system implementation without regulatory implications, were non-academic publications, or lacked sufficient methodological explanation.

After the selection process, the final set of eligible articles was analyzed and synthesized systematically. The synthesis was conducted using a thematic analysis approach to identify recurring themes, conceptual patterns, and regulatory issues arising from digital transformation in accounting. This process involved grouping findings related to the influence of digital technologies on accounting recording, reporting, auditing, and standard-setting practices. Particular attention was given to identifying regulatory gaps, challenges faced by standard-setting bodies, and proposed responses to technological disruptions (Yusuf et al. 2024).

The results of the thematic synthesis were then interpreted by linking empirical findings with existing accounting theories and regulatory frameworks. This approach allowed the study to assess how digitalization reshapes accounting practices and highlights the limitations of current standards in accommodating emerging technologies. By integrating insights from multiple studies and regulatory contexts, the SLR provides a comprehensive overview of the implications of digitalization for accounting standard-setting at both global and national levels.

Overall, this methodological framework ensures that the findings of the study are grounded in systematically selected and rigorously analyzed academic

literature, thereby enhancing the credibility and reliability of the conclusions drawn.

RESULT AND DISCUSSION

The transformation of Accounting Information Systems (AIS) is an inseparable phenomenon in the digital era, affecting nearly all sectors, including accounting. Initially, AIS functioned as a manual system designed to manage financial transactions and generate periodic financial reports, but technological advancements have transformed it into a complex and integrated digital system capable of supporting multiple business functions simultaneously within a single platform. This transformation has not only improved operational efficiency and accelerated financial reporting but also significantly enhanced data accuracy and analytical capabilities (Nurhayati and Susanto 2020).

Technological developments such as cloud computing, Enterprise Resource Planning (ERP), big data analytics, and the adoption of eXtensible Business Reporting Language (XBRL) have shifted the management of accounting data from manual systems to real-time, automated platforms. Cloud accounting allows decentralized and real-time access to financial data, speeding up recording and reporting processes (Rahayu and Hartono 2020). XBRL, on the other hand, enables standardization and automation of financial reporting that can be read directly by machines, a process that was previously impossible in conventional accounting systems.

Despite these advantages, digital transformation also presents significant challenges for accounting standards that were originally designed for manual systems and are less responsive to digital dynamics. Issues such as data reliability, auditability, information security, and reporting validity are central concerns. Existing accounting standards have not fully accommodated the complexity of digital data and automated reporting mechanisms, necessitating reformulation and adjustment to remain relevant and trustworthy (Yuliana and Prasetyo 2023).

Table 1. Comparison of Traditional and Modern Digital Accounting Information Systems

Aspect	Traditional	Modern Digital
Recording Media	Manual / Desktop	Cloud-based / Real-time
Information Access	Limited	Multi-user, Real-time
Reporting	Periodic	On-demand / Automated
Data Security	Manual control	Encryption & Digital backup
Integration with Other Systems	Low	High (ERP, CRM, BI tools)

Source: (Yuliana and Prasetyo 2023)

The differences are not merely technical but also strategic. Integrated digital systems support faster and more accurate data-driven decision-making

and enable dynamic risk management and performance monitoring. At the same time, they create a need for more adaptive regulatory frameworks, particularly concerning data management, privacy protection, and auditability of digital transactions.

In the context of financial reporting, implementing XBRL as a standard digital reporting format allows financial data to be machine-readable and accessible for automatic processing by various parties, including regulators and investors. However, this requires strict format standardization and system interoperability to ensure the reported data is accountable and valid. Without clear regulations, the risk of information distortion and data misuse increases, potentially undermining market trust (Sari 2021).

Cloud accounting also enables decentralized data management, allowing access to financial data from multiple geographic locations. This phenomenon introduces challenges related to cross-jurisdictional regulation, personal data protection, and auditors' responsibilities in verifying the accuracy of data stored in cloud servers. Currently, accounting and auditing standards do not provide clear guidelines for evaluating cloud-based data, making it necessary to develop new standards to address these complexities (Rahayu and Hartono 2020).

The transformation of AIS also shifts accountants' roles from mere transaction recorders to strategic analysts leveraging big data analytics. Through big data analysis, accountants can identify financial behavior patterns, detect anomalies, and provide insights that support real-time managerial decision-making. This change requires accounting standards to include guidelines on the use of analytics as an integral part of the reporting process, including disclosing analysis methods and relevant results to ensure transparency (Pratama and Wulandari 2020).

Table 2. Implications of Digital Technology on Accounting Practices and Standards Reform

Technology Aspect	Impact on Accounting Practice	Need for Standard Updates
Cloud Accounting	Real-time, decentralized access and team collaboration.	Regulation on security, auditability, and traceability of transactions in a cloud environment.
XBRL & e-Reporting	Automated financial reporting, increasing efficiency and data comparability.	Standardization of format and interoperability between different reporting systems.
ERP & Big Data	End-to-end system integration and advanced data analytics.	Guidelines for the use of non-financial data and methodologies for advanced analysis (e.g., predictive analytics).

Source: (Pratama and Wulandari 2020)

The changes brought by digital transformation require standard-setting bodies to act proactively and adaptively to bridge the gap between evolving accounting practices and existing regulatory frameworks. If updates are delayed, differences in technology adoption between large and small firms can widen information gaps, negatively impacting stakeholders, especially retail investors (Yuliana and Prasetyo 2023).

The rapid advancement of technology, such as blockchain, artificial intelligence (AI), and digital assets (including cryptocurrencies), introduces new dimensions in financial reporting and accounting that differ significantly from conventional systems. Blockchain, for instance, enables immutable transaction recording, decentralization, and automatic verification through smart contracts. This increases data transparency and reliability but challenges current accounting standards, which still rely on centralized control and manual documentation (Dwi et al. 2025).

The presence of AI also changes the role of accounting professionals, from merely recording data to analyzing and making decisions. AI can automatically process and classify large volumes of transactions. However, potential risks exist, such as algorithmic bias, accountability of automated processes, and the conformity of AI outcomes with fundamental accounting principles. Current accounting standards do not fully accommodate reporting requirements for AI-based systems.

Furthermore, the recognition and measurement of digital assets present new challenges. Unlike conventional assets, digital asset values are highly volatile, have no physical form, and are not always supported by clear regulatory authorities. This makes classification, fair value determination, and proper accounting treatment in financial statements difficult.

Table 3. Accounting Regulatory Challenges in Response to Technology and Digital Assets

Technology	Accounting Regulatory Challenges
Blockchain	Decentralization, automatic recognition, validity of transaction evidence
AI	Validity of automated outcomes, algorithmic bias, accountability
Digital Assets	Value volatility, legal uncertainty, accounting classification

Source: (Nugrahanti et al. 2023)

Regulators and standard-setting bodies are required to adapt quickly to respond to these challenges. Otherwise, gaps may arise between business practices and financial reporting regulated in standards, ultimately reducing the relevance and trust of users in financial statements.

The rapid development of digital technology not only significantly transforms accounting information systems but also creates complex regulatory challenges, especially related to blockchain technology and AI. Both technologies

have unique characteristics that fundamentally change the way financial recording, reporting, and oversight occur. Therefore, accounting standard-setting bodies and financial regulators face an urgent need to formulate adaptive and responsive regulatory frameworks.

Blockchain, as a distributed ledger technology, offers transparency, security, and efficiency in transaction recording without requiring a central authority. However, this decentralization creates supervision and control dilemmas because no single party is directly responsible for the stored data (Ismail 2024). Additionally, the immutable nature of blockchain, which prevents data from being altered or deleted once recorded, poses issues for correcting errors and adjusting financial statements, practices that are common in conventional accounting (Marselita 2024).

AI is used in various accounting applications, ranging from big data analysis, financial anomaly detection, to audit process automation. While AI offers increased efficiency and accuracy, regulatory challenges arise due to AI’s algorithmic nature, often being a "black box" where decision-making processes are not fully transparent and difficult to audit manually (Syahronny and Dewayanto 2024). This creates risks of systemic errors and potential bias in financial reporting that accounting standards and regulations must anticipate.

Table 4. Key Regulatory Issues of Blockchain and AI

Regulatory Issue	Description	Impact on Accounting Practices	Proposed Regulatory Solutions
Blockchain Decentralization	Transaction data is stored across multiple nodes without a central authority.	Difficult supervision, no clear central control for audit and accountability.	Principle-based regulations and cross-jurisdiction collaboration.
Permanent and Immutable	Transactions cannot be changed once recorded on the blockchain.	Difficulty correcting and adjusting financial statements (e.g., error correction).	Adaptive standards for smart contracts and guidelines for manual reconciliation.
Data Privacy and Protection	Need to balance blockchain transparency with the confidentiality of financial data.	Risk of sensitive data leaks and privacy violations.	Data protection regulations accommodating blockchain transparency needs.
Black Box AI	AI algorithms are difficult to verify and audit due to their complexity.	Difficult to audit and validate the analytical outcomes and decisions made by the AI.	AI audit standards, clear disclosure of methods, and algorithm validation.

Regulatory Issue	Description	Impact on Accounting Practices	Proposed Regulatory Solutions
AI Dependence	Risk of system failure and algorithmic bias (errors in decision-making).	Potential systemic errors and fraud based on undetected bias.	Continuous testing, validation, and human oversight (human-in-the-loop).

Source: : (Nugrahanti et al. 2023)

Blockchain Decentralization and Regulatory Oversight: Data decentralization in blockchain eliminates a central authority, making auditing and supervision more complex. Traditional accounting relies on clearly identifiable internal and external control authorities. With blockchain, transaction verification is distributed across nodes, requiring a new regulatory approach based on transparency principles, international collaboration, and the use of blockchain-based auditing technology. Regulations must accommodate different types of public and private blockchains and varying consensus mechanisms (Suryawijaya 2023).

Immutable Ledger and Accounting Error Correction: The immutable ledger created by blockchain means recorded transactions cannot be deleted or modified. This contradicts conventional accounting principles, which allow error corrections and retroactive adjustments. Therefore, accounting standards should adopt new principles that enable the use of smart contracts as automated reconciliation mechanisms and audit procedures accommodating corrective transactions without violating data integrity (Dwi et al. 2025).

Data Privacy and Protection Regulations: Blockchain transparency, especially on public blockchains, conflicts with the need for personal data protection and confidentiality of financial information. Regulations must balance information openness that supports accountability with the privacy protection of individuals and companies. This requires collaboration between financial regulators and data protection authorities and the implementation of suitable encryption and data anonymization technologies (Arifin 2024).

Black Box AI and Auditability: AI used in accounting processes often has decision-making mechanisms that are not transparent and difficult for human auditors to understand directly. This black box nature complicates verifying the correctness and accuracy of automated audit results. New audit standards should mandate algorithm disclosure, model validity testing, and human auditor involvement in AI oversight (Nugrahanti et al. 2023).

Systemic Risk and Algorithmic Bias: Overreliance on AI in financial decision-making can lead to systemic errors and unrecognized algorithmic bias. Regulations should mandate continuous testing, bias monitoring, and human

intervention mechanisms to ensure AI analysis results are trustworthy and meet professional accounting standards (Suryawijaya 2023).

The findings of this systematic review demonstrate that digital transformation has introduced fundamental challenges to the existing accounting standard-setting framework. Current accounting standards were primarily developed based on conventional transaction models and have not fully accommodated issues arising from decentralized systems, algorithm-based decision-making, and digital asset recognition.

The development of digital technologies such as blockchain, artificial intelligence (AI), and digital assets has brought significant changes to accounting measurement and reporting practices. Various accounting standard-setting bodies at the global level have started adjusting their standards to address these challenges, although the level of response and the scope of initiatives vary (Suryani 2023).

The International Accounting Standards Board (IASB) has developed the IFRS Taxonomy as part of the Digital Financial Reporting Initiative (DFRI), aiming to facilitate digital financial reporting using XBRL technology. Nevertheless, the standards do not fully accommodate blockchain and AI technologies comprehensively, remaining more focused on traditional reporting. Meanwhile, the Financial Accounting Standards Board (FASB) in the United States has carried out projects on digital asset measurement, including cryptocurrencies and tokens, as well as exploring technology-based reporting. However, the responses remain limited to specific issues without creating comprehensive systemic standards for digital assets.

In Europe, the European Financial Reporting Advisory Group (EFRAG) conducts studies and revisions of standards to incorporate blockchain and AI technologies, as well as promoting the use of XBRL-based reporting at the EU level. Despite these efforts, EFRAG still faces challenges in harmonizing with other global standards (Lestari and Solovida 2024).

In Japan, the Japanese Institute of Certified Public Accountants (JICPA) has issued specific guidance on accounting for digital assets and cryptocurrencies, while encouraging the use of digital technologies in audit processes. This initiative is still at an early stage, but JICPA is actively developing human resources capacity to face digitalization (Julita et al. 2023).

In Indonesia, the Financial Services Authority (OJK) together with the Indonesian Institute of Accountants (IAI) are developing accounting guidelines related to digitalization and digital assets, with a primary focus on enhancing digital technology competencies for accountants and regulators. This process is still in development and socialization stages and faces limitations in technology capacity and human resources (Wijaya and Marlina 2023).

Institutional issues such as limited regulator technology capacity, skill gaps, and resistance to change become major obstacles in the process of standard

reform. Therefore, cross-sector collaboration between regulators, academics, and industry players is crucial to formulate adaptive and practical standards. Future accounting standards must be inclusive of new technologies and formulated through a transparent multistakeholder process. Moreover, accountant education and training need updating to meet competency demands in the digital era.

Table 5. details the responses of various accounting standard-setting bodies to digitalization, including evaluations and examples of implementation:

Table 5. Responses of Various Accounting Standards Bodies

Standard-Setting Body	Main Initiative / Response	Weakness / Evaluation	Example of Implementation / Notes
IASB (International Accounting Standards Board)	- Development of IFRS Taxonomy for digital financial reporting based on XBRL. - Digital Financial Reporting Initiative (DFRI).	- Does not fully accommodate blockchain and AI technologies. - Standards still focus on traditional reporting.	- Many multinational companies use IFRS Taxonomy. - Blockchain implementation is still at the pilot project stage.
FASB (Financial Accounting Standards Board)	- Digital asset measurement projects (cryptocurrency and tokens). - Exploration of technology-based reporting.	- Response limited to specific issues. - No systemic standard for digital assets.	- Consultation with SEC regarding digital asset valuation. - Focus on increasing capital market transparency.
EFRAG (European Financial Reporting Advisory Group)	- Study and revision of standards to incorporate blockchain and AI technologies. - Promote XBRL-based reporting in the EU.	- Further harmonization with global standards needed.	- Plans to expand the use of digital technology in financial reporting in European public companies.
JICPA (Japanese Institute of Certified Public Accountants)	- Specific guidance for digital assets and cryptocurrency accounting. - Encourage the use of digital technology in auditing.	- Implementation still at an early stage; HR competency needs improvement.	- Training and development of human resources for the digitalization era.
OJK and IAI (Indonesia)	- Developing accounting guidelines related to digitalization and digital assets. - Focus on enhancing digital technology competencies.	- Still in development and socialization stages. - Technology and human resource capacity still limited.	- Training for accountants and regulators in Indonesia to adapt to new technology.

Source: (Wijaya and Marlina 2023)

From the table 5, it is evident that various accounting standard-setting bodies have made efforts to adapt to the development of digital technologies. However, the level of response and the scope of changes remain diverse, with most initiatives still at early stages and focused on specific aspects such as XBRL-based digital reporting or the measurement of specific digital assets. The main obstacles faced include limited technology capacity, human resource skill gaps, and the need for global standard harmonization. Additionally, resistance to change within institutional environments further slows the process of standard reform.

This review addresses the research gap identified in prior studies by providing a comprehensive and integrated analysis of how digitalization affects accounting standard-setting, rather than examining technological adoption in isolation. By synthesizing fragmented findings across multiple technologies and regulatory contexts, this study contributes to a more structured understanding of regulatory challenges and future standard development.

CONCLUSION

This study concludes that digitalization has become a fundamental driver in transforming accounting information systems and financial reporting practices. Based on the systematic literature review, technologies such as cloud computing, blockchain, XBRL, and artificial intelligence have significantly improved efficiency, transparency, and the speed of accounting processes, while simultaneously introducing complex regulatory challenges.

The findings reveal a persistent regulatory lag between rapid technological innovation and the responsiveness of accounting standard-setting bodies. Key challenges identified include the validity and auditability of algorithm-based decision-making, governance of decentralized systems, digital data security, and uncertainty in the recognition and measurement of digital assets. These issues indicate that existing accounting standards, which were largely developed under conventional transaction models, are not yet fully aligned with the realities of digital accounting environments.

This review contributes to the accounting literature by synthesizing fragmented prior studies and providing an integrated perspective on how digital transformation affects accounting standard-setting. The findings highlight the importance of adaptive, principle-based standards and cross-sector collaboration involving standard setters, regulators, academics, and practitioners to ensure the continued relevance and credibility of accounting standards in the digital era.

This study is limited to peer-reviewed journal articles published between 2019 and 2025 and selected academic databases, which may not capture ongoing regulatory developments or emerging practices. Future research may extend this review by incorporating empirical evidence, regulatory documents, and

comparative cross-country analyses to further explore the evolution of accounting standards in response to digital transformation.

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