

From Traditional Audits to Digital Audits: A Systematic Review of the Impacts and Driving Factors

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ABSTRACT

The rapid diffusion of digital technologies has fundamentally reshaped the way organizations generate and report financial and non-financial information, challenging traditional audit approaches that rely on manual and sample-based procedures. Building on this context, this paper aimed to provide a comprehensive synthesis of empirical evidence regarding the impact of digital technologies on auditing and to identify the key factors influencing their adoption across internal, external, and public sector audit functions during the 2015–2026 period. Using a qualitative descriptive design and a systematic literature review guided by the PICOC framework and PRISMA protocol, 33 relevant articles indexed in Scopus were selected from an initial pool of 959 publications. The findings showed that the use of various technologies, including computer-assisted audit techniques (CAATs), audit analytics, big data, artificial intelligence, robotic process automation, blockchain, and process mining, generally enhanced the effectiveness and efficiency of audit procedures, strengthened internal controls, and reduced errors and financial statement restatements, while simultaneously repositioning auditors as more strategic and data-driven partners. At the same time, the success of digital audit transformation was strongly influenced by technological infrastructure, data governance and security, organizational capabilities, leadership support, regulatory environments, and auditors' individual competencies, indicating that digitalization was neither a neutral nor an automatic process. This study provides practical implications for audit firms, internal audit units, supreme audit institutions, and regulators in developing more targeted and sustainable digital audit strategies, while also proposing future research directions concerning the organizational and institutional dynamics of digital auditing.

INTRODUCTION

The rapid diffusion of digital technologies has fundamentally reshaped the way organizations generate and report financial and non-financial information, challenging traditional audit approaches that rely on manual and sample-based proced (Thanasas et al., 2026). Building on this context, this paper aimed to provide a comprehensive synthesis of empirical evidence regarding the impact of digital technologies on auditing and to identify the key factors influencing their adoption across internal, external, and public sector audit functions during the 2015–2026 period. Using a qualitative descriptive design and a systematic literature review guided by the PICOC framework and PRISMA protocol, 33 relevant articles indexed in Scopus were selected from an initial pool of 959 publications. The findings showed that the use of various technologies, including computer-assisted audit techniques (CAATs), audit analytics, big data, artificial intelligence, robotic process automation, blockchain, and process mining, generally enhanced the effectiveness and

efficiency of audit procedures, strengthened internal controls, and reduced errors and financial statement restatements, while simultaneously repositioning auditors as more strategic and data-driven partners. At the same time, the success of digital audit transformation was strongly influenced by technological infrastructure, data governance and security, organizational capabilities, leadership support, regulatory environments, and auditors' individual competencies, indicating that digitalization was neither a neutral nor an automatic process. This study provides practical implications for audit firms, internal audit units, supreme audit institutions, and regulators in developing more targeted and sustainable digital audit strategies, while also proposing future research directions concerning the organizational and institutional dynamics of digital auditing.

METHOD

This research used a qualitative descriptive approach with a systematic literature review (SLR) method. The data consisted of secondary sources, specifically scientific articles related to the application of digital technologies in auditing. The SLR approach was employed to synthesize findings from previous studies, identify research patterns, and analyze consistencies or discrepancies among existing evidence (Danilova, 2019). This approach helped minimize bias and produce more reliable conclusions.

The PICOC (Population, Intervention, Comparison, Outcomes, Context) framework developed by Kitchenham and Charters (2007) was used to define the research scope and formulate the research questions. The framework guided the identification of the study population, interventions, comparison aspects, expected outcomes, and research context. Based on these criteria, the research questions were formulated systematically, as presented in Table 1.

Table 1. PICOC Summary

PICOC	Description
Population	Internal and external audit functions
Intervention	Use of digital technology in audit implementation
Comparison	Public Sector Audit Institution (SAI), an audit firm and internal audit function
Outcomes	Impacts and factors influencing the adoption of digital technologies for audits
Background	Empirical studies from various countries, period 2015-2026

Source: Adapted from Kitchenham & Charters (2007) and developed by the researcher based on the research scope (2026)

The SLR was conducted using the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) method. This method was applied to systematically organize and synthesize findings from previous studies (Moher et al., 2009). The literature selection process consisted of four stages: identification, screening, eligibility, and inclusion to obtain relevant and high-quality studies (Mohamed et al., 2020).

The identification stage involved searching the Scopus database in February 2026 for publications from 2015 to 2026. The search strategy used the keywords ("digital transformation" OR "digital change" OR "digital innovation" OR "digitalization" OR "digitization") AND ("auditing" OR "audit" OR "financial audit" OR "internal audit" OR "external audit"), which initially resulted in 959 articles.

The screening stage applied inclusion and exclusion criteria based on document type, publication stage, source type, language, and subject relevance. The criteria included journal articles published in English during the 2015–2026 period, with a primary focus on the adoption of digital technologies in internal or external auditing across public and private sector contexts. Articles published as proceedings, written in languages other than English, or unrelated to digital technology adoption in auditing were excluded. After the screening process, 283 articles remained.

The eligibility stage involved reviewing article titles and abstracts to identify studies aligned with the research objectives, resulting in 51 eligible articles. During the inclusion stage, the full texts of the remaining articles were analyzed to assess their relevance to the research criteria and theoretical framework. Consequently, 33 articles were selected for further analysis in this study. The PRISMA flow diagram illustrating the systematic literature review process is presented in Figure 1.

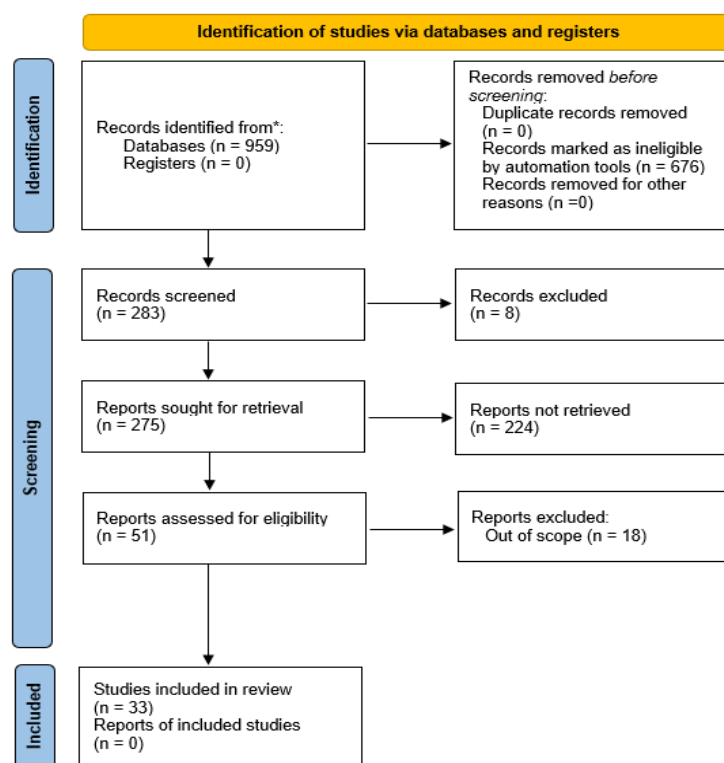


Figure 1. PRISMA Diagram in Literature Selection

Source: <https://www.prisma-statement.org>, Processed Researcher (2026)

RESULTS AND DISCUSSION

Specific data collection and inclusion criteria resulted in the selection of 33 articles. The article data is arranged in three categories: the context of the locus/country, the scope of the audit function, and the main theme according to the research objectives. Table 2 presents a list of selected articles.

Table 2. List of Selected Articles

Locus/Country	Audit Scope			Tema Utama
	SAI	Company Audit	Internal Audit Function	
China	(Qing et al., 2026; Shi & Zhang, 2025; Y. Zhang et al., 2024; Z. Zhang & Shi, 2024)	(Rahman et al., 2024)		Impact
Lebanon		(Matta & Chamoun, 2025)		Influencing factors
Arab Saudi		(Almgrashi & Mujalli, 2025; Alsaif et al., 2025)	(Othman, 2024)	Influencing factors
Arab Saudi			(Oraby, 2025; Othman, 2024)	Impact
Azerbaijan		(Musayeva et al., 2022)		Influencing factors
Malaysia	(Ismail et al., 2024)		(Wan Mohamad Noor et al., 2024)	Influencing factors
Vietnam		(Nguyen et al., 2024)	(Huy & Phuc, 2025)	Impact
New Zealand		(Liew et al., 2022)		Influencing factors
Ghana	(Sci-Fi & Moloi, 2025)	(Agana et al., 2025)		Influencing factors
English	(Ferry et al., 2025)			Influencing factors
Italy		(Vitali & Giuliani, 2024)	(Bertacchini et al., 2025)	Impact
Italy		(De Santis & D'Onza, 2020)		Influencing factors
Norway	(Volodina & Grossi, 2025)			Impact
Romania		(Fülöp et al., 2024)		Influencing factors
Brazil	(Aquino et al., 2022)			Impact
Croatia			(Halar, 2025; Tušek et al., 2021)	Influencing factors
France		(Manita et al., 2020)		Impact
European Union			(Betti & Sarens, 2021)	Impact
Global		(Werner et al., 2021)		Impact
Global	(Bracci et al., 2025; Otia & Bracci, 2022)	(Krieger et al., 2021)		Influencing factors

Source: Author's compilation based on systematic literature review results from the Scopus database (2026).

The Impact of the Use of Digital Technology in Auditing

The use of digital technology in auditing shows a series of positive impacts that are multidimensional. Empirically, audit digitization has been proven to improve the performance of audit functions—both in terms of effectiveness and efficiency—while strengthening the effectiveness of internal control of audited entities. In addition, the use of digital technology encourages the repositioning of the role of auditors from just an assurance provider to a more strategic consultative partner, contributes to the achievement of sustainable development goals, and increases the value and public accountability generated by state audit institutions. These findings confirm that investment in digital audit capacity is not only a technical aspect, but an important foundation for strengthening governance resilience, improving the quality of decision-making, and creating public value in the data-driven era.

First, empirical evidence consistently shows that audit digitization—through CAATTs, data analytics, RPA, AI, blockchain, and process mining—increases the effectiveness and efficiency of audit functions, both in audit firms, internal audit functions, and public sector audits. Audit digitization speeds up the audit process (Nguyen et al., 2024; Rahman et al., 2024) by reducing standardized routine work (Almgrashi & Mujalli, 2025), automating repetitive and manual audit stages (Musayeva et al., 2022; Othman, 2024; Volodina & Grossi, 2025), as well as automating labor-intensive processes (Otia & Bracci, 2022). A study by Aquino, et al. (2022) suggests that the use of CAATTs allows for the rapid processing of large volumes of data, saving auditors time (Aquino et al., 2022). The time savings resulting from the use of this audit technology have an impact on increasing audit relevance and audit orientation on high-value-added tasks (Betti & Sarens, 2021; Manita et al., 2020; Otia & Bracci, 2022). Studies have also found that the automated audit process can reduce human error, reducing audit risks in general and in particular those related to personal judgment (Vitali & Giuliani, 2024). These findings are consistent with Othman's (2024) study that AI improves audit quality by reducing errors and improving the consistency of audit results (Othman, 2024). Rahman et al. (2024) added that the findings of collaborative adoption of AI by audit firms and clients can reduce the likelihood of restatements and improve the overall audit quality (Rahman et al., 2024). This decrease in the likelihood of restatement signifies an increase in the accuracy and reliability of financial reporting, which contributes positively to audit quality and regulatory compliance (Rahman et al., 2024). Another study on process mining in financial statement auditing found that the application of process mining techniques into audit procedures replaces manual steps, strengthens the resilience of audit evidence, and allows auditors to handle the volume of transactions processed automatically or semi-automatically more reliably than traditional sampling-based procedures (Werner et al., 2021). These findings are in line with the study of Oraby (2025) which found that the use of blockchain technology in audits helped auditors reduce their reliance on sampling, shift to testing over the entire population, focus efforts on control testing and high-risk areas, and speed up the verification process (Oraby, 2025).

Second, from a corporate governance perspective, the digitization of government audits has been proven to strengthen the internal control of audited entities through increased audit independence, transparency, and efficiency over internal controls. A quasi-experiment-based study in China found that government digital audits significantly reduce weaknesses in internal controls, with key mechanisms being early detection of weaknesses related to

reliability, timeliness, and diversity of data sources, as well as the implementation of continuous audits that extend managers' accountability for weaknesses in internal controls (Shi & Zhang, 2025).

Third, the application of digital technology also encourages the reorganization of audit functions and the repositioning of auditors' professional roles, from mere compliance assurance providers to strategic partners that provide advisory services and business insights (Bertacchini et al., 2025; Betti & Sarens, 2021). Studies of internal audit functions in a digitized business environment show that the integration of IT experts into internal audit teams and the use of more advanced data analytics allow auditors to conduct much more in-depth and nuanced analysis than traditional approaches (Bertacchini et al., 2025). Artificial intelligence (AI)-based audit technologies have the potential to create significant changes in the future, where external auditors are likely to transition to new roles as consultants, with specialized expertise in grouping and processing data to support decision-making processes (Nguyen et al., 2024). By shifting the focus to higher value-added analysis, consulting and tasks, auditors can play a better role in making strategic contributions (Almgrashi & Mujalli, 2025). In carrying out this consultative role, the application of audit technology helps build robust predictive analysis to understand how anomalies may impact the organization in the future (Betti & Sarens, 2021). Overall, empirical findings from various contexts show that audit digitization encourages a redefinition of auditor professional competencies and identities, where skills in the field of information technology and data analytics function as complementary to accounting expertise, as well as an increase in the proportion of advisory activities along with a decrease in time allocation for routine tasks.

Fourth, recent empirical findings confirm that audit digitization not only impacts internal efficiency, but also contributes to the sustainable development agenda, particularly energy efficiency and green innovation (Qing et al., 2026). A quasi-experimental study on the digitalization of government audits in China (Golden Audit Project Phase III) shows that the intensity of government digital audits improves the energy efficiency of companies; A 1 percent increase in digital audit activity correlates with an increase of about 2.13 percent in a company's energy efficiency (Qing et al., 2026). This effect is mediated by increased information transparency, improved resource allocation efficiency, and strengthening of corporate green innovation, so that digital audits serve as an environmental governance instrument that forces companies to reorganize internal processes towards more energy-efficient operations (Qing et al., 2026). The findings are in line with other studies that have found that the digitization of government audits encourages green innovation in companies (Z. Zhang & Shi, 2024) and improves the performance of government environmental governance (Y. Zhang et al., 2024). A study on the Norwegian SAI found that the digital transformation of audits not only reduces the cost of audits but also the carbon footprint of SAI reports as well as significantly reduces human resources because there is no need to replace employees who retired as much as before (Volodina & Grossi, 2025). The Huy & Puc (2025) study added that Blockchain-Based Internal Auditing Practices (BBIAP) greatly influence the achievement of Sustainable Development Goal 8 (SDG8A) (Huy & Phuc, 2025). Overall, the empirical findings indicate that audit digitization acts as a catalyst for green governance by closing the information gap, reinforcing regulatory pressures on corporate

behavior, and ultimately contributing to energy efficiency, green innovation, and broader sustainable development.

Fifth, in the realm of the public sector, digital audit transformation is associated with increasing public value and accountability generated by the state audit institution (SAI). SAI plays a crucial role in ensuring public sector accountability, but is faced with the challenge of maintaining relevance amid the rapid development of digitalization. A qualitative study on the Norwegian SAI found that the digital transformation of auditing makes a significant contribution to strengthening public legitimacy and trust through the formation of a stronger professional image, increased transparency of the audit process, and more replicable and verifiable results (Volodina & Grossi, 2025). Strengthening analytical capacity was also found to increase the scope of supervision by state audit bodies in Brazil (Aquino et al., 2022). These findings are in line with the study of Bracci et al. (2026) which found that the integration of artificial intelligence (AI) technology has the potential to expand and redefine the scope of audits beyond traditional audit practices, enabling improved monitoring and reporting functions in real time and encouraging more transparent interaction with stakeholders (Bracci et al., 2025). This development has implications for changing the balance of power, access to information, and institutional role in the SAI audit ecosystem while potentially strengthening the legitimacy and trust of the institution. In addition, the use of AI in the SAI regulatory framework can reduce dependence on external parties and at the same time increase the degree of institutional autonomy (Bracci et al., 2025). Although many institutions still interpret digitalization as limited to technology adoption or process automation, there are some SAIs that are beginning to look at digital transformation holistically, including strategies, organizational structures, culture, and competencies, to revitalize their role as guardians of public accountability and transparency.

Factors Influencing the Application of Digital Technology in Auditing

In the framework of digital transformation, understanding the readiness of organizations to adopt digital technology in the audit process needs to begin with identifying how the combination of organizational factors, technology, environment, and individual auditor factors shape the context in which the adoption decision is made. The various empirical studies studied show that the decision to switch to digital auditing is not solely determined by the availability of technology, but is the result of an interaction between organizational characteristics, technological capabilities, pressures and support of the institutional environment, as well as the individual characteristics and dispositions of auditors. This is important to understand because adequate knowledge of the factors that determine an organization's readiness will help leaders and stakeholders design appropriate supporting measures before digital audits are widely implemented. By clearly identifying the role of organizational, technological, environmental, and individual auditor factors, organizations can reduce the risk of obstacles or delays in the transformation process and increase the chances of achieving digital audit benefits.

First, the organizational factor. Research shows that the success of audit digitization is highly dependent on the readiness of the organization both on the side of the audited entity and the audit institution. At the auditee level, technology readiness and data capacity are the main prerequisites; the inability of entities to provide clean and structured data limits the utilization of advanced data analytics and hinders the transformation of audit capacity that

digital technologies promise (Ferry et al., 2025). The size of the organization (Vitali & Giuliani, 2024) and the level of digital maturity of the client also influence the extent to which auditors are willing to adopt advanced analytical tools (Ceki & Moloi, 2025), in addition to the limited financial resources of the client (De Santis & D'Onza, 2020). Another study by Agana et al. (2025) on audit firms in Ghana added that client concerns related to data security and the strength of the client's internal control system influence the use of generalized audit software (GAS) by external auditors (Agana et al., 2025).

In SAI, organizational factors are reflected in institutional structure, work culture, resource capacity, and internal policies related to digital transformation. Studies on the digitalization of state audit bodies such as the UK's NAO show that organizational culture changes tend to be slow with limited staff turnover, difficulty recruiting talent with digital competencies, and budget constraints resulting in the potential of audit technology not being fully realized despite increasing digitalization pressures (Ferry et al., 2025). A conservative professional culture and skepticism of algorithmic "black boxes" prompts public auditors to demand greater transparency and accountability from digital tools, and if these needs are not adequately addressed, professional skepticism can become a significant barrier to technology adoption in SAI (Ceki & Moloi, 2025). In line with these findings, the studies of Ismail et al. (2024) and Volodina & Grossi (2025) emphasize the importance of digital and change-oriented cultural transformation (Ismail et al., 2024; Volodina & Grossi, 2025).

In an audit firm, organizational factors are related to the size of the firm, support and managerial structure as well as human resource development policies. The size of a firm affects the resources available within the firm and its ability to attract talent with the technological capabilities required to adopt ADA (Krieger et al., 2021). Small and medium-sized firms with limited budgets and technology capacity are likely to delay or limit investment in analytics tools and CAAT. In this condition, cost-benefit considerations are the main factor in the adoption of audit technology; when financial and operational benefits are not clearly identified, organizations tend to maintain traditional procedures and make limited use of digital technologies (Fülöp et al., 2024). Top management support and adequate staff training are driving the adoption of technologies such as the use of GAS in Big Four firms in Ghana (Agana et al., 2025). Studies on analytics transformation in Big Four firms show that the appointment of technology transformation managers, the formation of internal teams with analytics expertise, and the integration of digitally competent graduates into the audit line strengthen the change process (Liew et al., 2022). This structure provides formal training, guidance in the use of ADA and GAS, and encourages young auditors to take on the role of "citizen data scientists" so that the application of advanced analytics does not rely solely on IT specialists (Liew et al., 2022).

In the internal audit function in public and private sector entities, organizational factors include managerial structures, resource availability, and human resource development policies. The study of Bertacchini et al. (2025) found a much more complex business and regulatory environment driving the reorganization of internal audit functions by forming a dedicated IT team or adding profiles with advanced digital expertise (Bertacchini et al., 2025). The application of audit technology requires an excellent mastery of the concepts and techniques used so that auditor education and training policies are key factors to increase the readiness to adopt audit technology (Tušek et al., 2021). Meanwhile, another study in

Malaysia shows that management support prepares human resources and IT supporting data sources will serve as a necessary prerequisite before adoption, especially in a government environment that is not yet ready for the widespread implementation of digital audits (Wan Mohamad Noor et al., 2024).

Second, the technological factor. Studies on SAI in Ghana show the adoption of audit technology needs to consider the level of complexity, compatibility with the audited entity's systems, and ease of use. In addition, organizations need to conduct continuous monitoring of technological developments, evaluate compliance with auditee systems, and manage risks related to data security and cybersecurity (Ceki & Moloi, 2025). A study on global SAI found that SAI in countries with low levels of digitalization has greater limitations in adopting advanced audit technologies (Otia & Bracci, 2022). The same thing is also found in audit firms, where compatibility with client software (Agana et al., 2025), technological complexity and compatibility with auditor work processes are the main considerations in adoption (Alsaif et al., 2025). Studies of ADA and RPA show that technologies with high levels of complexity (e.g. analytical models that require advanced statistical understanding) tend to be selectively adopted by large firms that have dedicated teams, while smaller firms choose simpler technologies such as RPA to automate repetitive tasks (reconciliation, detailed testing) before moving to advanced analytics (Alsaif et al., 2025; Krieger et al., 2021).

Meanwhile, in the internal audit function, the implementation of technology adoption is influenced by the level of digital maturity that needs to be adjusted to the level of digital maturity of related companies, organizations, or institutions (Halar, 2025). When an organization's information systems are still at a very basic stage of digital readiness, or data is not standardized, the implementation of BDA in internal audits is often considered unrealistic. In that context, internal audit functions make better use of simple features such as data extraction and limited database testing, while deferring the use of advanced analytics techniques that demand IT investment and higher user capacity.

Third, environmental factors. Environmental factors for SAI include national digitalization policies, public audit regulations, and international professional pressure. The digital transformation of government—such as the implementation of e-government, the digitization of public processes, and the acceleration of the "data revolution"—is changing the way financial and performance information is produced, stored, and accessed, so SAI needs to adapt its audit approach to remain relevant to new demands of transparency and accountability (Otia & Bracci, 2022; Volodina & Grossi, 2025). Professional pressure from organizations like INTOSAI is pushing SAIs in various countries to explore and adopt digital audit technologies (Otia & Bracci, 2022). However, when regulatory frameworks and audit standards have not explicitly acknowledged or provided detailed guidance on the use of technology, the legitimacy of such techniques can be hampered. This is reflected in a study by Ferry et al. (2025) which found that the development of audit digitization in NAO is limited by mandates that have not been changed. There is pressure to keep pace with the digitalization of governments and the private sector, but some regulators who define the mandate, oppose some forms of digitalization (Ferry et al., 2025).

For audit firms, environmental factors that affect the readiness of technology adoption are regulatory pressures, regulatory support, and investor pressure. The study of Nguyen et al. (2024) found that strict regulations in Vietnam limit the adoption of audit technology,

particularly due to legal provisions requiring the involvement of human auditors that can hinder substitution by AI-based technologies (Nguyen et al., 2024). Other findings highlight the importance of regulator support providing financial and technical support that facilitates the implementation of GAS among small audit firms (Agana et al., 2025). Investors' and regulators' expectations of the reliability and speed of financial reporting create a need for audit firms to adopt AI to improve the transparency, efficiency, and quality of financial statements to support economic diversification and attract investment (Othman, 2024).

As for the internal audit function, environmental factors include digitalization policies and competitive pressures. Digitalization policies in the public sector and organizational digital transformation programs, such as the government's financial system modernization agenda, create a need to adjust the role of internal audits to be able to evaluate technology-based systems and processes (Musayeva et al., 2022). Companies that are in the high or medium digitization group, face strong regulatory pressure, so they are encouraged to carry out special digitization projects on the internal audit function (Bertacchini et al., 2025). In addition, competitive pressures influence organizational decisions in adopting technology, where organizations tend to follow the application of technology by competitors to maintain an advantage, and in the context of audits, this pressure is related to the fulfillment of audit evidence as well as time and cost efficiency, proven to encourage the use of digital audits (Wan Mohamad Noor et al., 2024).

Fourth, the individual auditor factor. In auditors at SAI, individual factors include the characteristics, perceptions and competencies of the IT possessed. Research on global SAI shows that perceptions of usability and ease of use, as well as the level of skill and readiness of technology can play a role in driving technology adoption. Meanwhile, anxiety about technology, resistance to change, preference for structured data, conservative approaches, and limited digital competencies are the main obstacles in the application of technologies such as data mining and AI (Bracci et al., 2025). Skepticism and professional independence have been found to hinder the adoption of audit technology, as it encourages critical evaluation of the transparency and reliability of the technology, as well as potentially generating resistance when auditors do not trust systems that are perceived to lack clear accountability (Ceki & Moloi, 2025). The findings of Ismail et al. (2024) in the context of SAI Malaysia show that knowledge and availability of resources have an important role in shaping public sector auditors' commitment to the implementation of digital audits, although they do not directly determine adaptability. Factors such as the valence of change (an individual's perception of the benefits or disadvantages of change), task knowledge that includes digital or information technology competencies, and the availability of tasks in the form of resource support and technology investment, have been proven to have a positive and significant effect on these commitments (Ismail et al., 2024).

In audit firm auditors, individual factors are closely related to the auditor's personal experience and IT competence. The study of Agana et al. (2025) found that personal experience factors include auditors' personal preference to use GAS over conventional audits which is a significant personal factor that influences GAS use (Agana et al., 2025). Studies in Saudi Arabia show that auditors will be better prepared to adopt if technology is perceived to improve performance and is relatively easy to use, (Almgrashi & Mujalli, 2025), highlighting the importance of IT literacy for auditors. In line with this, the study of Matta & Chamoun

(2025) emphasizes the need for audit firms to integrate IT literacy training with the development of traditional skills to effectively prepare auditors for the future of digital auditing (Matta & Chamoun, 2025). Studies of analytics transformation in Big Four firms show that young auditors who are equipped with intensive training and encouraged to take on the role of "citizen data scientist" are faster to adopt technology and integrate it into audit procedures (Liew et al., 2022).

In internal auditors, IT competence is still a prominent individual factor. Internal auditors with adequate IT knowledge, cognitive capacity, and self-efficacy tend to be better able to integrate digital audits into their work practices (Wan Mohamad Noor et al., 2024). This is in accordance with the findings in the study by Bertacchini et al. (2024) which highlight that many internal audit functions, especially those in groups with low levels of maturity, still face limited human resources with advanced digital competencies, so that the use of digital technology in daily audit activities is not optimal (Bertacchini et al., 2025).

CONCLUSION

This research showed that digital transformation in auditing was not merely the adoption of new tools but represented a comprehensive change in how audit functions were designed, operated, and interpreted by stakeholders. The findings from the SLR of literature published between 2015 and 2026 consistently demonstrated that the use of technologies such as CAATs, audit analytics, big data, artificial intelligence (AI), robotic process automation (RPA), blockchain, and process mining improved the effectiveness and efficiency of audit procedures, strengthened internal controls, and reduced the risk of errors and financial statement restatements, thereby enhancing the quality and reliability of audit outcomes. Audit digitalization also encouraged the repositioning of auditors' roles from compliance-oriented procedure executors to strategic partners who focused on data-driven analysis, insights, and value-added advisory services. Consequently, professional competencies needed to be redefined by integrating accounting expertise with information technology and data analytics capabilities. At the broader governance level, empirical evidence suggested that digital audits contributed to improving public transparency and accountability, strengthening the legitimacy and trust of public sector audit institutions, and supporting green governance initiatives through the promotion of energy efficiency and green innovation.

At the same time, this study confirmed that the success of digital audit transformation was strongly influenced by the interaction of organizational factors, technological capabilities, environmental conditions, and auditors' individual characteristics, indicating that digitalization was neither a neutral nor an automatic process. Investments in technological infrastructure, data governance, and information security needed to be accompanied by the development of human capabilities, visionary leadership, and clear regulatory and institutional support to ensure that technological benefits were effectively realized while minimizing potential risks. By systematically mapping the impacts and determinants of digital audit adoption across various contexts and institutional settings, this study provided a relevant conceptual and empirical foundation for audit firms, internal audit units, supreme audit institutions (SAIs), regulatory bodies, and policymakers to develop more targeted, realistic, and sustainable digital audit transformation strategies. Furthermore, the findings opened

opportunities for future research to explore the implementation dynamics of digital auditing at the organizational and institutional levels across different countries.

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