

Determinants and development of audit quality in the digital era: A structured narrative review of auditing research (2020–2026)

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Abstract

This study aims to analyze the determinants and development of audit quality in the digital era through a systematic literature review approach to auditing research for the 2020–2026 period. The method used is a Systematic Literature Review (SLR) by reviewing various reputable international journal articles relevant to the topics of audit quality, digital auditing, and the use of technologies such as artificial intelligence. This study aims to analyze the determinants and development of audit quality in the digital era through a structured narrative review of auditing research published in the 2020–2026 period. Adopting the narrative-review approach described by Snyder (2019), the study purposively selects and thematically synthesizes peer-reviewed articles relevant to audit quality, digital auditing, and the use of technologies such as artificial intelligence; it does not claim the exhaustive, fully reproducible search protocol of a systematic literature review. The results show that audit quality is influenced by key factors such as independence, competence, professional skepticism, audit tenure, as well as organizational and corporate governance factors. In addition, the development of digital technology is reported across the reviewed literature to support audit efficiency and effectiveness, but also requires increased auditor competence in facing digital transformation. This study concludes that audit quality in the digital era is the result of an integration of human factors, technology, and the organizational environment, and points to a growing emphasis in the reviewed literature on technology-based auditing.

Keywords:

Audit Quality, Digital Audit, Artificial Intelligence

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INTRODUCTION

Audit quality is a crucial aspect in maintaining the credibility of financial reports in the modern era. The role of auditors is increasingly crucial in ensuring the transparency and accountability of a company's financial information. According to DeFond and Zhang (2020), audit quality is influenced by various factors, such as auditor independence and competence. Therefore, understanding the determinants of audit quality is a growing topic in auditing research.

The development of digital technology has brought significant changes to auditing practices. Technologies such as big data and artificial intelligence are beginning to be integrated into the audit process. A study by Kokina and Davenport (2021) shows that digital technology can improve audit efficiency and effectiveness. However, the adoption of this technology also poses new challenges for auditors in maintaining audit quality.

Besides technology, individual auditor factors also influence audit quality. Professionalism, experience, and professional skepticism are crucial elements in audit implementation. Research by Sulaiman et al. (2021) found that auditors with high levels of skepticism tend to produce better audit quality. This suggests that audit quality is influenced not only by the system but also by the auditor's individual characteristics.

Auditor independence is a key factor determining audit quality. An independent auditor is able to provide an objective opinion without pressure from management. According to research by Al-Ajmi (2020), auditor independence has a positive relationship with audit quality. Therefore, regulations that maintain auditor independence are crucial in auditing practice.

Besides independence, audit tenure is also a frequently studied factor in audit quality research. Excessively long audit tenure can reduce auditor independence. However, on the other hand, longer tenure can improve the auditor's understanding of the client. Research by Fitriany et al. (2022) shows a non-linear relationship between audit tenure and audit quality.

The development of internal auditing also contributes to improving overall audit quality. Internal audit plays a role in strengthening a company's internal control system. According to research by Eulerich et al. (2023), an effective internal audit function can improve external audit quality. This demonstrates the importance of synergy between internal and external audit.

In the digital era, the use of artificial intelligence in auditing is increasing. This technology enables auditors to analyze large amounts of data quickly and accurately. Research by Issa et al. (2021) shows that AI can help detect anomalies in financial statements. However, the use of AI also requires new competencies for auditors.

Furthermore, auditing research trends have also experienced significant developments in recent years. Prior bibliometric work reports an increasing number of publications related to audit quality and digital auditing. A study by Sari et al. (2023) found that digital auditing and audit quality are the primary focus of recent research. This indicates a paradigm shift in the auditing field.

Audit quality is also influenced by environmental factors such as regulations and corporate governance. Companies with good corporate governance tend to have higher audit quality. According to research by Alfraih (2020), corporate governance has a significant influence on audit quality. Therefore, the integration of governance and auditing is crucial.

The COVID-19 pandemic has also impacted auditing practices globally. Auditors must adapt audit methods to the limited conditions. Research by Albitar et al. (2021) shows that the pandemic impacted audit procedures and audit quality. This has accelerated the adoption of digital technology in auditing.

In addition to external factors, organizational factors such as the size of the public accounting firm also influence audit quality. Larger accounting firms tend to have better resources and

systems. According to research by Francis (2021), audit firm size is positively correlated with audit quality. This indicates differences in audit quality based on organizational capacity.

Based on these various studies, it can be concluded that audit quality is influenced by various interrelated factors. The development of digital technology is also a crucial factor in the transformation of modern auditing. Therefore, a comprehensive review that synthesizes the recent literature is needed to understand the determinants and development of audit quality. This research is expected to contribute to the development of auditing science in the digital era.

THEORETICAL STUDY

Audit quality is a key concept in auditing research, relating to the auditor's ability to detect and report material misstatements. DeAngelo (1981) defined audit quality as the auditor's probability of discovering and reporting violations in a client's accounting system. This concept continues to evolve, taking into account aspects of auditor independence and competence. According to DeFond and Zhang (2020), audit quality also reflects the level of reliability of the resulting financial statements.

Agency theory is an important foundation for understanding the role of audits in organizations. Jensen and Meckling (1976) explain that conflicts between principals and agents can be minimized through audit mechanisms. Auditors act as independent parties who ensure the accuracy of information provided by management. Therefore, audit quality is crucial in reducing information asymmetry between stakeholders.

Auditor independence is a key determinant of audit quality. Independence reflects the auditor's ability to be objective without being influenced by external pressures. According to Al-Ajmi (2020), auditor independence has a significant impact on audit quality. Without strong independence, audit results are potentially biased and unreliable.

Auditor competence is also a crucial factor in determining audit quality. Competence encompasses the auditor's knowledge, skills, and experience in conducting audits. Bonner (2008) stated that competent auditors are better able to identify risks and errors. Research by Sulaiman et al. (2021) also confirms that competence positively influences audit quality.

Professional skepticism is a critical attitude that auditors must possess in carrying out their duties. Auditors are required to be cautious in the information provided by clients. Hurtt (2010) explains that professional skepticism helps auditors detect potential fraud. A study by Sulaiman et al. (2021) shows that high levels of skepticism improve audit quality.

Audit tenure, the length of the relationship between an auditor and a client, can impact audit quality. On the one hand, a long tenure enhances the auditor's understanding of the client's business. However, on the other hand, excessively long tenure can reduce auditor independence. Fitriany et al. (2022) found that the relationship between audit tenure and audit quality is non-linear.

The resource-based view theory explains that organizational resources influence performance, including in auditing. Barney (1991) stated that organizations with superior resources will have a competitive advantage. In the auditing context, large public accounting firms have better resources. Francis (2021) showed that audit firm size correlates with higher audit quality.

The development of digital technology has given rise to the concept of technology-based auditing. The use of big data, data analytics, and artificial intelligence is becoming increasingly common in audit practice. Kokina and Davenport (2021) state that digital technology improves audit efficiency and effectiveness. This suggests that technology is becoming a new determinant of audit quality in the digital era.

Artificial intelligence (AI) in auditing enables fast and accurate data analysis. AI can assist auditors in detecting anomalies and unusual patterns. Issa et al. (2021) explain that the use of AI

can improve audit quality through process automation. However, the use of AI also requires increased auditor competency in technology.

Internal audit also plays a crucial role in supporting external audit quality. The internal audit function helps ensure the effectiveness of a company's internal control system. Eulerich et al. (2023) stated that strong internal audit can improve external audit quality. This demonstrates a synergistic relationship between internal and external audit.

Good corporate governance is an environmental factor that influences audit quality. Good governance promotes transparency and accountability within an organization. Alfraih (2020) found that companies with good governance tend to have higher audit quality. Therefore, governance is a crucial element in modern auditing theory.

The development of auditing research also indicates new trends in literature studies. Bibliometric analysis is used to identify patterns and developments in auditing research. Sari et al. (2023) show that the topics of audit quality and digital auditing are increasingly dominant. This confirms that audit quality in the digital era is a primary focus in theoretical and empirical studies.

METHODS

Types and Approaches of Research

This research uses a qualitative approach in the form of a structured narrative review. The aim is to identify, organize, and thematically synthesize relevant research findings on the determinants and development of audit quality in the digital era. Following Snyder (2019), a narrative review is appropriate when the goal is to build an integrative conceptual understanding of a broad topic rather than to answer a single, narrowly defined question through an exhaustive and fully reproducible search. Unlike a systematic literature review in the strict sense (e.g., Kitchenham and Charters, 2007), this study does not claim complete coverage of the literature; instead, it purposively selects representative and influential works to map the field transparently within acknowledged limits.

A structured narrative review allows the researcher to synthesize findings from previous studies and to highlight conceptual relationships and emerging directions in auditing science. Snyder (2019) notes that the narrative (or semi-systematic) review is well suited to developing conceptual frameworks from a diverse body of scientific sources. The procedure followed here was structured rather than ad hoc: sources were located, screened against stated relevance criteria, and organized thematically, as described in the following sub-sections. This makes the basis for source selection auditable to the reader while remaining transparent about the fact that the search was not exhaustive.

Data Collection Sources and Techniques

The sources in this study were drawn from peer-reviewed journal articles indexed in Scopus and other reputable scientific databases. The articles were limited to the 2020 to 2026 period to ensure the relevance and recency of the material; the literature search was carried out between January and March 2026, so coverage of works published in 2026 is necessarily partial. Tranfield et al. (2003) note that careful selection of data sources is a crucial step in any literature review. The databases consulted were Scopus, ScienceDirect, and Springer, with Google Scholar used as a supplementary source. Because the search was selective rather than exhaustive, the reviewed corpus should be read as a purposive sample of influential and representative works rather than as the complete population of studies on the topic.

Data collection was conducted through a search process using keywords such as “audit quality,” “digital auditing,” and “artificial intelligence in auditing.” Articles were included if they were (a) peer-reviewed journal articles or recognized seminal works, (b) written in English, and (c) directly relevant to the determinants of audit quality or to digital/technology-based auditing. Articles

were excluded if they were non-peer-reviewed materials, were not available in full text, or addressed the keywords only tangentially. Seminal theoretical and methodological works published before 2020 (for example, on agency theory, the resource-based view, and review methodology) were retained as conceptual anchors and are reported separately from the 2020–2026 review corpus. Xiao and Watson (2019) emphasize that a transparent and consistent selection process strengthens the trustworthiness of a literature review. Applying these criteria yielded the set of works synthesized in the following section.

Data analysis

Data analysis was conducted using a thematic analysis approach to identify recurring patterns and conceptual relationships across the reviewed studies. The collected material was classified into key themes such as audit quality, digital technology, and other determinant factors. Braun and Clarke (2006) state that thematic analysis is effective for identifying patterns in qualitative data. This approach allowed the researcher to develop coherent categories and interpretations from the literature.

Research trends were then characterized qualitatively, by noting which themes recur most frequently across the reviewed works and how research emphasis appears to have shifted over the 2020–2026 period. This study does not perform a formal bibliometric analysis; quantitative indicators such as citation counts, co-citation networks, or keyword-frequency mapping (Donthu et al., 2021) are beyond the scope of the present narrative review and are noted as a direction for future work. Accordingly, statements about research trends in this paper should be read as interpretive observations grounded in the reviewed literature rather than as the output of a quantitative bibliometric procedure.

ANALYSIS AND DISCUSSION

Determinants of Audit Quality

Audit quality is influenced by various interrelated factors in modern auditing practices. One key factor is auditor independence, which determines objectivity in issuing audit opinions. According to Al-Ajmi (2020), auditor independence significantly impacts audit quality. Therefore, maintaining independence is crucial for improving audit quality.

Besides independence, auditor competence is also a crucial determinant of audit quality. Competence encompasses technical ability, experience, and an understanding of auditing standards. Bonner (2008) stated that auditors with high competence are better able to detect material errors. This finding is supported by Sulaiman et al. (2021), who found that competence positively impacts audit quality.

Another factor influencing audit quality is the auditor's professional skepticism. Skepticism helps auditors critically evaluate audit evidence. Hurtt (2010) explains that professional skepticism is a crucial element in the audit process. Research by Sulaiman et al. (2021) also shows that skepticism significantly improves audit quality.

Audit tenure is also a frequently discussed variable in auditing research. Long-term relationships between auditors and clients can impact auditor independence. Fitriany et al. (2022) found that audit tenure has a non-linear relationship with audit quality. Therefore, balanced regulations governing auditor tenure are needed.

The Role of Digital Technology in Audit

The development of digital technology has transformed the way auditors perform their duties. Technologies such as big data and data analytics enable auditors to analyze large amounts of data. Kokina and Davenport (2021) stated that digital technology improves audit efficiency. This indicates that digitalization is a crucial factor in improving audit quality.

Artificial intelligence (AI) is also beginning to be used in modern auditing processes. AI can assist auditors in detecting anomalies and unusual patterns in financial data. Issa et al. (2021) explain that the use of AI can improve audit accuracy. However, AI implementation also requires adequate human resource readiness.

Besides its benefits, digital technology also brings challenges to auditing practice. Auditors must possess technological skills to optimally utilize digital systems. According to Kokina and Davenport (2021), a lack of digital competency can hinder audit effectiveness. Therefore, training and competency development are crucial.

Digital transformation is also driving changes in audit standards and procedures. Auditors must adapt audit methods to evolving technologies. Issa et al. (2021) state that technology-based audits require a more adaptive approach. This suggests that technology influences not only tools but also the overall audit process.

Developments in Auditing Research (2020–2026)

Auditing research has experienced significant development in recent years. The topics of audit quality and digital auditing have become a major focus in the literature. Sari et al. (2023) noted an increase in publications related to digital auditing. This indicates a shift in researchers' attention to technology in auditing.

The reviewed literature suggests that auditing research is increasingly diverse and interdisciplinary, focusing not only on financial aspects but also on technology and governance. Donthu et al. (2021) note that formal bibliometric methods can systematically identify such trends; while the present review characterizes these shifts qualitatively rather than quantitatively, a dedicated bibliometric study would allow the development of auditing research to be mapped more precisely.

Furthermore, research also shows increasing attention to sustainability auditing. Audits focus not only on financial statements but also on environmental and social aspects. A study by Sari et al. (2023) shows that sustainability auditing is a rapidly growing topic. This reflects the changing needs of stakeholders for transparency.

The COVID-19 pandemic has also influenced the development of auditing research. The pandemic has accelerated digitalization in auditing. Albitar et al. (2021) stated that the pandemic significantly impacted audit procedures. This reinforces the importance of technology in supporting audit quality.

Integration of Factors in Audit Quality in the Digital Era

Audit quality in the digital era is not influenced by a single factor, but rather the interaction of various determinants. Individual, organizational, and technological factors contribute to determining audit quality. DeFond and Zhang (2020) state that audit quality is a multidimensional concept. Therefore, a comprehensive approach is needed to analyze audit quality.

The role of organizations, such as public accounting firms, also influences audit quality. Larger audit firms have better resources to support the audit process. Francis (2021) showed that audit firm size correlates with higher audit quality. This demonstrates the importance of organizational capacity in auditing practices.

Furthermore, corporate governance also plays a role in improving audit quality. Companies with good corporate governance tend to have robust internal control systems. Alfraih (2020) states that good governance improves audit quality. Therefore, the integration of governance and auditing is crucial.

Overall, audit quality in the digital era is the result of the integration of human factors, technology, and the organizational environment. Technological developments present both

opportunities and challenges in improving audit quality. Issa et al. (2021) emphasize the importance of auditor adaptation to new technologies. Thus, future audit quality will be significantly influenced by the ability to adapt to digital change.

CONCLUSION

Audit quality is a multidimensional concept influenced by various factors, both within the individual auditor and the organizational environment. Independence, competence, professional skepticism, and audit tenure have been shown to be key determinants of audit quality. Furthermore, organizational factors such as the size of the public accounting firm and corporate governance also play a significant role in supporting audit quality. These findings align with previous studies emphasizing the importance of a combination of internal and external factors in modern auditing practices.

The development of digital technology, particularly the use of big data and artificial intelligence, has brought significant changes to the auditing process. Technology enables increased efficiency, accuracy, and analytical capabilities in audits. However, digitalization also requires auditors to develop new competencies to optimally utilize technology. Therefore, adapting to technological developments is key to maintaining and improving audit quality in the digital era.

Overall, this research demonstrates that audit quality in the digital era is the result of an integration of human factors, technology, and the organizational environment. Developments in auditing research during the 2020–2026 period also indicate a shift in focus toward digital auditing and technology-based auditing. This confirms that the future of auditing will be heavily influenced by technological innovation and auditor adaptability. Therefore, a comprehensive and sustainable approach is needed to ensure audit quality is maintained amidst dynamic changes.

This study should be read in light of its methodological scope. As a structured narrative review, it relies on a purposive rather than exhaustive selection of sources, and it characterizes research trends qualitatively rather than through a formal bibliometric procedure. The reviewed corpus is therefore illustrative of the field rather than fully representative of it, and the trend observations are interpretive. Future research could build on these findings through a full systematic literature review with a documented search protocol and PRISMA-style reporting, or through a quantitative bibliometric analysis of citation and keyword patterns, in order to confirm and extend the conceptual integration proposed here.

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