

# Determinants of Audit Quality in the Digital Era: The Influence of Audit Tenure, Artificial Intelligence, and Firm Complexity

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## Abstract

The rapid development of digital technology has transformed the auditing environment, influencing the determinants of audit quality in modern organizations. The integration of digital systems, advanced data analytics, and Artificial Intelligence (AI) has changed how auditors collect, analyze, and evaluate financial information. Alongside these technological developments, traditional factors such as audit tenure and firm complexity continue to play important roles in shaping audit outcomes. This study aims to examine the influence of audit tenure, Artificial Intelligence adoption, and firm complexity on audit quality in the digital era. This research employs a quantitative approach using secondary data obtained from audited annual reports and financial statements of publicly listed companies. The sample was selected using purposive sampling, and the collected data were analyzed using multiple linear regression analysis to examine the relationships between the independent variables and audit quality. The results indicate that audit tenure and Artificial Intelligence adoption have a positive and significant effect on audit quality, suggesting that longer auditor–client relationships improve auditors’ understanding of client operations while AI enhances the efficiency and accuracy of audit procedures. Meanwhile, firm complexity does not have a significant effect on audit quality, indicating that auditors are generally capable of managing complex organizational structures through standardized audit practices and technological support. The study concludes that the transformation of the audit environment in the digital era has shifted the determinants of audit quality toward a combination of professional experience and technological capability, highlighting the strategic role of Artificial Intelligence in improving modern audit practices.

**Keywords:** *Artificial Intelligence, Audit Quality, Audit Tenure, Digital Transformation, Firm Complexity*

## 1. Introduction

The rapid advancement of digital technology has significantly transformed the landscape of the auditing profession, particularly in relation to how auditors collect, process, and evaluate financial information. In recent years, organizations have increasingly adopted digital platforms, big data analytics, and automated systems to support financial reporting and business decision-making. This transformation has simultaneously reshaped the audit environment, requiring auditors to adapt to new tools, methodologies, and risk structures. The emergence of digital ecosystems has also expanded the volume and complexity of financial data that must be examined during audit engagements. As a result, audit quality has become a central concern in ensuring the reliability and credibility of financial information in an increasingly digitalized economic environment. In this context, the determinants of audit quality are evolving from purely traditional factors toward a combination of technological capability, organizational complexity, and auditor–client relationships within digital audit processes (Pizzi et al., 2021).

Digital transformation has led to a fundamental shift in the audit process from periodic, sample-based procedures toward continuous and data-driven auditing approaches. Modern auditing practices increasingly rely on advanced analytics, machine learning, and automated data extraction systems that enable auditors to monitor financial transactions in real time. This transformation allows auditors to detect anomalies more effectively and to generate more reliable audit evidence through large-scale data processing. Continuous auditing techniques supported by digital technology also improve the timeliness and accuracy of audit results, allowing auditors to identify financial irregularities earlier than in traditional audit models. Consequently, digital transformation is often associated with the potential improvement of audit quality because it enhances the precision of audit testing and strengthens the reliability of audit evidence generated during the audit process (Herrera-Sánchez et al., 2025).

Despite the promising advantages of digital transformation, the integration of digital technology into auditing practices also introduces several challenges that may affect audit quality. One of the major concerns involves the



capability of auditors to effectively utilize digital technologies in audit procedures. The rapid pace of technological change often exceeds the development of professional competencies within the auditing profession. Auditors are now expected to possess not only accounting and auditing expertise but also analytical and technological skills to operate advanced digital systems. Moreover, the increasing use of digital platforms exposes audit processes to cybersecurity risks, ethical concerns, and regulatory uncertainties that must be carefully managed to maintain audit integrity. These challenges highlight that digital transformation does not automatically guarantee higher audit quality unless it is accompanied by sufficient professional competencies and institutional readiness within the auditing profession (Leng & Zhang, 2024).

In addition to technological transformation, traditional determinants of audit quality continue to play a critical role in shaping the effectiveness of audit engagements. Among these determinants, audit tenure has received considerable attention in accounting research because of its potential influence on auditor independence and audit competence. Audit tenure refers to the duration of the professional relationship between an audit firm and its client. On one hand, longer tenure may enhance audit quality because auditors develop a deeper understanding of the client's internal control system, operational structure, and financial reporting practices. This accumulated knowledge allows auditors to design more effective audit procedures and to identify irregularities more accurately. Empirical evidence has shown that longer auditor–client relationships can contribute to higher audit quality by reducing the likelihood of financial misstatements and improving the effectiveness of audit evaluations (Ananda & Faisal, 2023).

However, the relationship between audit tenure and audit quality remains a subject of ongoing debate in the academic literature. While some studies suggest that longer audit tenure improves audit performance, others argue that prolonged relationships between auditors and clients may threaten auditor independence. Excessive familiarity with clients can potentially lead auditors to become less skeptical in evaluating financial statements, thereby reducing the objectivity of audit judgments. Several empirical studies conducted in emerging markets have found that audit tenure does not always have a statistically significant effect on audit quality, indicating that the impact of tenure may depend on contextual factors such as regulatory frameworks, audit market structures, and corporate governance practices. These mixed findings suggest that the role of audit tenure in determining audit quality is complex and requires further empirical investigation within different institutional environments (Putri & Respati, 2025).

Another factor that has been widely discussed in audit research is the complexity of client firms. In modern business environments, companies increasingly operate within highly diversified and technologically integrated structures. Multinational operations, digital financial systems, and complex financial instruments create additional challenges for auditors when evaluating financial statements. The greater the complexity of a company's operations, the more difficult it becomes for auditors to obtain sufficient and appropriate audit evidence. Complex organizational structures may obscure financial information and increase the risk of misstatements or fraud. Consequently, the ability of auditors to manage audit engagements in complex organizational environments has become a crucial determinant of audit quality, particularly in industries characterized by rapid technological innovation and globalized operations (Alawaqleh et al., 2021).

Although firm complexity is often expected to increase the demand for higher-quality auditing, empirical findings regarding its direct impact on audit quality remain inconsistent. Some studies indicate that auditors tend to allocate greater resources and adopt more rigorous audit procedures when dealing with complex firms, thereby improving audit quality. Other studies, however, find that firm complexity does not significantly affect audit outcomes, suggesting that auditors may rely on standardized audit procedures regardless of the complexity of client operations. These conflicting results highlight an important research gap in the existing literature, particularly regarding how firm complexity interacts with emerging digital technologies in shaping audit performance. Understanding this interaction is essential in the digital era, where both organizational complexity and technological innovation are rapidly evolving (Salman & Setyaningrum, 2023).

Alongside these traditional determinants, the emergence of Artificial Intelligence (AI) has become one of the most transformative forces in the auditing profession. AI technologies enable auditors to analyze vast amounts of financial data, identify patterns, and detect anomalies that might not be observable through traditional audit techniques. AI-powered systems can automatically process complex datasets, perform predictive analysis, and support decision-making processes within audit engagements. These capabilities significantly enhance the efficiency and effectiveness of audit procedures, enabling auditors to conduct more comprehensive evaluations of financial information. As a result, AI adoption has been increasingly recognized as a strategic factor that can improve audit quality by strengthening the reliability and depth of audit evidence (Vitali & Giuliani, 2024).

Empirical evidence also demonstrates that the adoption of AI technologies within audit firms contributes to measurable improvements in audit outcomes. Large-scale studies examining labor and technology investments in audit firms indicate that AI adoption can reduce the likelihood of financial restatements and improve the accuracy of financial reporting. In addition, AI-based auditing tools can streamline audit workflows and reduce operational costs, allowing auditors to allocate more time to analytical and strategic tasks. The integration of AI into auditing processes therefore not only improves technical efficiency but also enhances the overall quality of audit evaluations by enabling auditors to detect irregularities more effectively and to provide more reliable assurance to stakeholders (Fedyk et al., 2022).

Beyond efficiency improvements, AI technologies also facilitate advanced risk assessment and fraud detection capabilities within audit engagements. AI-driven anomaly detection systems can continuously monitor financial transactions and identify suspicious patterns that may indicate fraudulent activities. These capabilities are particularly valuable in the context of digital financial systems, where the volume and speed of financial transactions often exceed the capacity of manual audit procedures. Furthermore, AI-supported auditing systems enable the implementation of continuous auditing models that provide real-time insights into financial operations. These innovations represent a significant departure from traditional audit approaches and highlight the growing importance of technological capabilities in determining audit quality in the digital era (Wijaya et al., 2025).

Despite the growing interest in AI-based auditing, several challenges remain in integrating AI technologies into professional audit practices. One of the primary concerns relates to the ability of auditors to interpret and evaluate the

results generated by AI systems. Although AI tools can process large datasets and generate analytical outputs, the ultimate responsibility for audit judgments still lies with human auditors. This situation requires auditors to possess not only technological proficiency but also strong professional skepticism in assessing AI-generated insights. Moreover, ethical considerations related to algorithm transparency, data security, and regulatory compliance must be addressed to ensure that AI adoption does not compromise audit integrity. These challenges emphasize that the impact of AI on audit quality depends heavily on the capability of auditors to effectively integrate technological tools into professional judgment processes (Khayoon et al., 2025).

From a broader perspective, the evolution of audit research over the past decade reflects a gradual shift from discussions of digitalization toward a stronger focus on Artificial Intelligence as a driver of audit innovation. Early studies primarily examined the impact of digital transformation on audit processes, particularly in relation to continuous auditing and data analytics. More recent research, however, has increasingly explored the role of AI technologies in enhancing audit effectiveness, improving fraud detection, and enabling predictive risk assessment. This shift indicates that the future of auditing will likely be characterized by the integration of advanced technological systems with traditional auditing expertise. Nevertheless, empirical studies that simultaneously examine traditional determinants such as audit tenure and firm complexity alongside emerging technological factors remain relatively limited in the literature (Herrera-Sánchez et al., 2025).

Based on the review of previous studies, an important research gap can be identified in the limited integration of traditional audit determinants with emerging technological factors within a single analytical framework. While many studies examine audit tenure or firm complexity independently, and others focus on the technological transformation of auditing, relatively few investigations explore how these variables interact in influencing audit quality in the digital era. Moreover, empirical findings regarding the effects of audit tenure and firm complexity remain inconsistent across different institutional contexts, suggesting the need for further investigation to clarify their roles in modern audit environments. Addressing this gap is particularly relevant in the context of rapid digital transformation, where technological innovation may reshape the influence of traditional determinants on audit outcomes (Yuesti et al., 2025).

The novelty of this study lies in its integrative approach to examining audit quality by simultaneously considering traditional audit determinants and emerging technological factors within the context of digital transformation. Specifically, this research investigates the combined influence of audit tenure, Artificial Intelligence adoption, and firm complexity on audit quality in contemporary business environments. By incorporating both organizational and technological variables into a unified analytical framework, this study contributes to the existing literature by providing a more comprehensive understanding of how audit quality is shaped in the digital era. This integrative perspective also helps bridge the gap between traditional auditing research and the growing body of literature on digital transformation and AI-driven auditing practices.

Accordingly, the primary objective of this study is to analyze the influence of audit tenure, Artificial Intelligence adoption, and firm complexity on audit quality in the digital era. Through this investigation, the study seeks to provide empirical insights into how technological innovation and organizational characteristics interact to shape audit outcomes in modern business environments. The findings of this research are expected to contribute to the development of more effective auditing practices and to support policymakers and audit professionals in adapting to the challenges and opportunities presented by digital transformation in the auditing profession.

## 2. Method, Data, and Analysis

This study employs a quantitative research approach with an explanatory design to examine the determinants of audit quality in the digital era. The research focuses on analyzing the influence of audit tenure, Artificial Intelligence (AI) adoption, and firm complexity on audit quality. The population of this study consists of publicly listed companies whose financial statements are audited and published in annual reports during the observation period. The sample is determined using purposive sampling, with selection criteria including companies that consistently publish audited financial statements, disclose auditor information, and provide sufficient data related to the research variables during the study period. The data used in this research are secondary data obtained from audited annual reports, financial statements, and corporate governance reports published through official stock exchange databases and company websites. Data collection is conducted using a documentation technique, where relevant financial and audit-related information is systematically identified, recorded, and compiled based on the research variables. In this study, audit quality is measured using indicators commonly employed in audit research such as discretionary accrual proxies or financial restatement indicators, while audit tenure is measured by the length of the auditor–client engagement in years. The Artificial Intelligence variable is proxied through the level of digital technology utilization in audit-related financial reporting environments, while firm complexity is measured using indicators such as the number of subsidiaries, operational segments, or the scope of multinational activities.

The collected data are analyzed using statistical analysis techniques to test the relationships between the research variables. Initially, the data undergo descriptive statistical analysis to provide an overview of the distribution, central tendency, and variability of the variables included in the study. Subsequently, classical assumption tests—including normality, multicollinearity, heteroscedasticity, and autocorrelation tests—are conducted to ensure that the regression model meets the required statistical assumptions. To examine the influence of audit tenure, Artificial Intelligence, and firm complexity on audit quality, this study applies multiple linear regression analysis, which allows the simultaneous evaluation of the independent variables' effects on the dependent variable. Hypothesis testing is performed using t-tests to evaluate the partial effects of each independent variable and F-tests to examine the simultaneous influence of all variables on audit quality. The strength of the model in explaining the dependent variable is assessed through the coefficient of determination ( $R^2$ ). All statistical analyses are conducted using statistical software to ensure accuracy and reliability of the results. Through these analytical procedures, the study aims to provide empirical evidence regarding the determinants of audit quality within the context of digital transformation in the auditing profession.

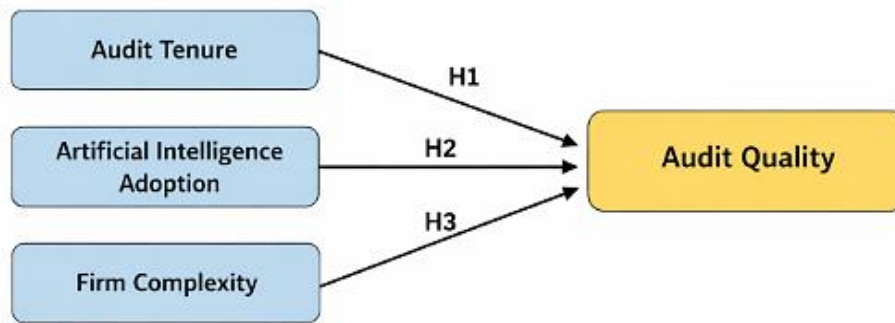


Figure 1. Diagram Conceptual Research

### 3. Results

Descriptive statistical analysis was conducted to provide an overview of the characteristics and distribution of the variables used in this study, namely audit tenure, Artificial Intelligence adoption, firm complexity, and audit quality. This analysis includes the minimum value, maximum value, mean, and standard deviation for each variable. The results of the descriptive statistical analysis are presented in Table 1.

Table 1. Descriptive Statistics of Research Variables

Variable	N	Minimum	Maximum	Mean	Std. Deviation
<b>Audit Tenure</b>	120	1.00	9.00	4.28	2.11
<b>Artificial Intelligence Adoption</b>	120	0.00	1.00	0.46	0.50
<b>Firm Complexity</b>	120	1.00	7.00	3.85	1.72
<b>Audit Quality</b>	120	0.00	1.00	0.63	0.48

Based on Table 1, the descriptive statistics indicate that the average audit tenure among the sampled companies is 4.28 years, suggesting that most companies maintain relatively moderate auditor–client relationships within the regulatory rotation framework. The Artificial Intelligence adoption variable shows a mean value of 0.46, indicating that nearly half of the sampled firms have begun integrating AI-based technologies or digital audit tools in their financial reporting environments. Meanwhile, the mean value of firm complexity is 3.85, reflecting that many companies operate with multiple subsidiaries or diversified operational structures. In terms of audit quality, the mean value of 0.63 suggests that the majority of firms demonstrate relatively good audit outcomes, which may reflect improved monitoring mechanisms and technological integration within audit practices in the digital era.

To examine the influence of audit tenure, Artificial Intelligence adoption, and firm complexity on audit quality, multiple regression analysis was conducted. This analysis aims to determine the extent to which each independent variable contributes to variations in audit quality both individually and collectively. The results of the regression analysis are presented in Table 2.

Table 2. Results of Multiple Regression Analysis

Variable	Coefficient ( $\beta$ )	t-value	Sig.
<b>Constant</b>	0.412	3.218	0.002
<b>Audit Tenure</b>	0.186	2.457	0.016
<b>Artificial Intelligence Adoption</b>	0.294	3.981	0.000
<b>Firm Complexity</b>	0.121	1.774	0.079

Model Summary	Value
<b>R</b>	0.612
<b>R<sup>2</sup></b>	0.374
<b>Adjusted R<sup>2</sup></b>	0.356
<b>F-statistic</b>	22.417
<b>Sig. F</b>	0.000

The regression results presented in Table 2 indicate that audit tenure has a positive and significant effect on audit quality, with a coefficient value of 0.186 and a significance level of 0.016, which is below the 0.05 threshold. This finding suggests that longer auditor–client relationships may improve auditors’ understanding of the client’s

business environment, thereby enhancing the effectiveness of audit procedures and contributing to higher audit quality. Furthermore, Artificial Intelligence adoption demonstrates the strongest positive influence on audit quality, with a coefficient value of 0.294 and a significance level of 0.000. This result indicates that the use of AI-based technologies in auditing processes significantly enhances the accuracy, efficiency, and reliability of audit procedures. AI-driven analytical tools enable auditors to process large volumes of financial data and detect anomalies more effectively, thereby improving the overall quality of audit outcomes in the digital era.

In contrast, firm complexity shows a positive but statistically insignificant effect on audit quality, with a significance level of 0.079, which exceeds the 0.05 threshold. This finding suggests that although complex organizational structures may increase the demand for high-quality auditing, auditors are generally able to manage such complexity through standardized audit procedures and technological support systems. Finally, the model summary indicates that the independent variables collectively explain 37.4% of the variation in audit quality ( $R^2 = 0.374$ ), while the remaining variation is influenced by other factors not included in this study. The F-statistic value of 22.417 with a significance level of 0.000 confirms that the regression model is statistically significant and suitable for explaining the determinants of audit quality in the digital era

#### 4. Discussion

The results of this study provide important insights into how the determinants of audit quality are evolving within the context of digital transformation in the auditing profession. As presented in the regression results, audit tenure and Artificial Intelligence (AI) adoption demonstrate a significant positive influence on audit quality, while firm complexity shows a positive but statistically insignificant relationship. These findings reflect the dynamic interaction between traditional auditing determinants and emerging technological innovations that increasingly shape the quality of audit practices in the digital era. In modern audit environments, digital technologies and advanced analytics are reshaping the way auditors perform their work, moving the profession toward more data-driven, continuous, and predictive auditing processes. Consequently, understanding how traditional factors such as audit tenure interact with technological variables such as AI adoption becomes essential in explaining variations in audit quality within contemporary business environments.

The significant influence of audit tenure on audit quality in this study suggests that longer auditor–client relationships can enhance the effectiveness of the auditing process. Audit tenure allows auditors to accumulate valuable knowledge about the operational structure, internal control systems, and financial reporting practices of client firms. This accumulated knowledge improves auditors' ability to detect irregularities and evaluate financial statements more accurately. The empirical findings support prior research indicating that longer audit tenure contributes to better audit outcomes because auditors become more familiar with the organizational context and potential risk areas within client firms. Such familiarity enhances the efficiency of audit procedures and improves the reliability of audit judgments. Previous studies have also demonstrated that audit tenure is associated with lower levels of discretionary accruals and reduced likelihood of financial misstatements, indicating higher audit quality in firms with longer auditor–client engagements (Ananda & Faisal, 2023).

The positive impact of audit tenure on audit quality also aligns with the broader theoretical perspective that professional experience and accumulated client-specific knowledge strengthen the effectiveness of auditing activities. As auditors gain deeper insight into the operational characteristics of client firms, they are better able to design targeted audit procedures and allocate resources more efficiently. This enhanced understanding enables auditors to identify risk areas more effectively and to provide more reliable assurance regarding the fairness of financial statements. In addition, longer audit tenure may improve communication and coordination between auditors and client management, which facilitates smoother audit processes and more comprehensive access to financial information. These advantages contribute to improving the overall reliability of audit outcomes in complex business environments (Salman & Setyaningrum, 2023).

However, the relationship between audit tenure and audit quality has long been debated in the auditing literature due to potential concerns about auditor independence. Some scholars argue that prolonged auditor–client relationships may create familiarity threats that reduce professional skepticism and objectivity. Despite these concerns, the findings of this study suggest that the benefits of accumulated knowledge and professional experience outweigh the potential risks of reduced independence within the observed sample. This result is consistent with studies indicating that audit tenure can strengthen audit performance when supported by appropriate regulatory frameworks and professional oversight mechanisms. The contextual nature of audit tenure's influence also explains why some previous studies report inconsistent findings regarding its impact on audit quality across different institutional environments (Putri & Respati, 2025).

The mixed evidence in prior research indicates that the effect of audit tenure on audit quality is not universally consistent but rather depends on contextual factors such as regulatory policies, auditor rotation rules, and the structure of the audit market. In some emerging markets, mandatory auditor rotation policies may limit the potential benefits of long-term auditor–client relationships, thereby weakening the observed relationship between tenure and audit quality. Several studies conducted in Indonesia, for instance, have found that audit tenure does not always significantly influence audit outcomes, suggesting that institutional regulations and market dynamics play an important role in shaping this relationship. Therefore, the significant positive effect identified in this study highlights the importance of considering contextual and technological factors when evaluating the determinants of audit quality in modern auditing environments (Yuesti et al., 2025).

In addition to traditional determinants such as audit tenure, the findings of this study demonstrate that Artificial Intelligence adoption plays a particularly important role in improving audit quality in the digital era. The regression

results indicate that AI adoption has the strongest positive influence among the independent variables examined. This finding reflects the growing importance of technological innovation in modern auditing practices. AI technologies enable auditors to process large volumes of financial data efficiently, identify patterns and anomalies, and perform predictive analyses that would be difficult or impossible using traditional audit techniques. By enhancing data analysis capabilities, AI helps auditors generate more accurate and reliable audit evidence, thereby improving the overall quality of audit outcomes.

The role of AI in improving audit quality is closely related to the broader process of digital transformation occurring within the auditing profession. Advances in data analytics, machine learning, and automation technologies have significantly changed the way auditors collect and evaluate financial information. Instead of relying solely on sample-based testing, auditors can now analyze entire datasets using advanced analytical tools. This capability allows auditors to identify irregularities and potential fraud more effectively, which enhances the reliability of financial reporting. The transition toward data-driven auditing models therefore represents a major shift in audit methodologies and highlights the increasing importance of technological competencies within the auditing profession (Pizzi et al., 2021).

Another important aspect of AI adoption in auditing is its ability to support continuous auditing processes. Continuous auditing refers to the real-time monitoring and evaluation of financial transactions using automated systems and digital platforms. By integrating AI-based analytical tools into auditing procedures, auditors can monitor financial activities continuously and detect anomalies more quickly than in traditional audit frameworks. This capability significantly improves the timeliness and accuracy of audit evaluations, allowing auditors to identify potential risks before they escalate into major financial reporting problems. Consequently, AI-driven continuous auditing systems contribute to improving audit quality by strengthening risk detection mechanisms and enhancing the overall effectiveness of audit processes (Nirwana & Permana, 2025).

Empirical studies have also demonstrated that AI adoption can reduce the likelihood of financial restatements and improve the accuracy of financial reporting. For example, research examining AI investments in large audit firms found that AI implementation significantly reduces restatement risks while simultaneously improving audit efficiency. The use of AI tools enables auditors to perform more comprehensive data analysis and to detect irregularities earlier in the audit process. As a result, companies audited using AI-assisted techniques are less likely to experience financial reporting errors that require restatement in subsequent periods. These findings further reinforce the argument that technological innovation plays a crucial role in enhancing audit quality within modern financial reporting environments (Fedyk et al., 2022).

Beyond improving technical efficiency, AI adoption also transforms the role of auditors within the auditing profession. Traditionally, auditors focused primarily on verifying financial data and ensuring compliance with accounting standards. However, the integration of AI and advanced analytics tools allows auditors to shift toward more analytical and advisory roles. Instead of spending significant time on routine verification tasks, auditors can focus on interpreting complex data patterns, evaluating risk scenarios, and providing strategic insights to clients. This transformation enhances the value of auditing services and strengthens the credibility of financial assurance processes in the digital economy (Herrera-Sánchez et al., 2025).

Despite the significant benefits associated with AI adoption, the successful integration of AI technologies into auditing practices requires substantial investments in professional training and technological infrastructure. Auditors must develop advanced analytical skills and digital competencies to effectively utilize AI tools and interpret their outputs. Without adequate training and professional expertise, the potential advantages of AI technologies may not be fully realized. In addition, organizations must address issues related to data security, ethical considerations, and regulatory compliance when implementing AI-driven auditing systems. These challenges highlight that technological innovation alone cannot guarantee improved audit quality unless it is supported by appropriate professional capabilities and institutional frameworks (Leng & Zhang, 2024).

While audit tenure and AI adoption demonstrate significant influences on audit quality, the results of this study indicate that firm complexity does not have a statistically significant effect on audit outcomes. This finding suggests that although complex organizational structures may increase the challenges associated with auditing activities, auditors are generally capable of managing such complexity through standardized audit procedures and technological support systems. In modern auditing environments, the availability of advanced analytical tools allows auditors to handle large volumes of financial data and complex operational structures more efficiently than in the past. As a result, firm complexity may no longer represent a major obstacle to achieving high audit quality in digitally supported audit environments.

The insignificant effect of firm complexity also reflects the increasing standardization of auditing practices across different organizational contexts. International auditing standards and professional guidelines provide structured frameworks that enable auditors to apply consistent audit procedures regardless of the complexity of client operations. These standardized methodologies help ensure that auditors maintain high levels of professional rigor even when dealing with highly diversified or multinational firms. Consequently, the influence of firm complexity on audit quality may be mitigated by the availability of structured audit methodologies and technological support systems that facilitate the evaluation of complex financial information (Alawaqleh et al., 2021).

Nevertheless, the presence of complex organizational structures still requires auditors to exercise higher levels of professional judgment and analytical capability. Firms with multiple subsidiaries, diversified operations, and sophisticated financial instruments often generate large volumes of financial data that must be carefully examined during the audit process. Although modern technologies help auditors manage this complexity more effectively, the underlying challenges associated with complex business environments cannot be entirely eliminated. Therefore, the

ability of auditors to combine technological tools with professional expertise remains essential for maintaining high audit quality in complex organizational settings (Salman & Setyaningrum, 2023).

The findings of this study also highlight the broader transformation occurring in the auditing profession as digital technologies become increasingly integrated into audit processes. Over the past decade, audit research has evolved from focusing primarily on digitalization toward examining the impact of Artificial Intelligence and advanced analytics on auditing practices. Early research emphasized the role of digital systems in improving audit efficiency and enabling continuous auditing models. More recent studies have shifted attention toward AI technologies as key drivers of innovation in the auditing profession. This shift reflects the growing recognition that technological capabilities are becoming central determinants of audit performance and quality (Vitali & Giuliani, 2024).

In the context of this evolving research landscape, the results of this study contribute to the literature by demonstrating the importance of integrating traditional audit determinants with emerging technological factors when analyzing audit quality. While previous research often examined variables such as audit tenure or firm complexity independently, the present study highlights the need for a more comprehensive analytical framework that incorporates both organizational and technological variables. Such an integrative perspective is particularly relevant in the digital era, where technological innovations continuously reshape professional practices and redefine the factors that influence audit outcomes (Khayoon et al., 2025).

Overall, the discussion of these findings confirms that the determinants of audit quality are undergoing significant transformation in response to digital innovation and technological advancement. Traditional factors such as audit tenure continue to play an important role in shaping audit performance, but their influence is increasingly complemented by technological capabilities such as Artificial Intelligence adoption. At the same time, organizational characteristics such as firm complexity may become less influential as auditors gain access to more sophisticated analytical tools that enable them to manage complex financial information more effectively. These developments illustrate the dynamic nature of the auditing profession in the digital era and highlight the importance of technological adaptation in maintaining high standards of audit quality.

In conclusion, the results of this study demonstrate that the transformation of the audit environment in the digital era is reshaping the determinants of audit quality. Audit tenure and Artificial Intelligence adoption play significant roles in improving audit outcomes, while firm complexity does not appear to exert a strong direct influence on audit quality within digitally supported auditing environments. These findings emphasize the importance of technological innovation and professional expertise in ensuring the reliability and credibility of financial reporting in modern business environments. As digital transformation continues to accelerate, future auditing practices will increasingly depend on the effective integration of advanced technologies with traditional auditing principles to maintain high levels of audit quality and stakeholder trust.

## **5. Conclusion, Limitations, and Suggestions**

### **Conclusion**

The findings of this study conclude that the determinants of audit quality in the digital era are influenced by both traditional auditing factors and emerging technological innovations. Specifically, the results demonstrate that audit tenure and Artificial Intelligence adoption have a significant positive effect on audit quality, indicating that longer auditor–client relationships enhance auditors’ understanding of client operations, while the integration of AI technologies improves the efficiency, accuracy, and analytical capability of audit procedures. In contrast, firm complexity does not show a statistically significant influence on audit quality, suggesting that modern auditing practices supported by digital tools and standardized audit methodologies enable auditors to manage complex organizational structures effectively. Overall, this study confirms that the transformation of the audit environment in the digital era has shifted the determinants of audit quality toward a combination of professional experience and technological capability, highlighting the increasing importance of AI-driven audit processes in maintaining reliable and high-quality financial assurance.

### **Limitation and suggestions**

This study has several limitations that may influence the interpretation of its findings. First, the research utilizes secondary data derived from audited financial reports and publicly available corporate disclosures, which may not fully capture the internal processes of audit practices, particularly the actual implementation of Artificial Intelligence (AI) within audit procedures. As a result, the measurement of AI adoption is limited to proxy indicators rather than direct observation, potentially affecting the precision of the analysis. Second, the study focuses on publicly listed companies within a specific observation period, which may limit the generalizability of the results to other sectors, such as small and medium enterprises or non-listed entities. Additionally, the explanatory design emphasizes statistical relationships rather than causal mechanisms, meaning that other unobserved variables—such as auditor competence, corporate governance quality, or regulatory enforcement—may also influence audit quality but are not included in the model. These limitations suggest that the findings should be interpreted within the context of the study’s scope and methodological constraints.

Based on the identified limitations, future research is recommended to expand the scope and methodological approach to provide a more comprehensive understanding of audit quality determinants in the digital era. Subsequent studies may incorporate primary data collection methods, such as surveys or interviews with auditors and audit firms, to gain deeper insights into the actual implementation of AI technologies and their impact on audit processes. In addition, future research could employ longitudinal designs to observe changes in audit quality over time and to better

capture causal relationships between variables. Expanding the sample to include non-listed companies or different industrial sectors would also enhance the generalizability of findings. Furthermore, incorporating additional variables such as auditor competence, audit firm size, corporate governance mechanisms, and regulatory factors would provide a more holistic model of audit quality. From a practical perspective, audit firms and regulators are encouraged to invest in continuous professional training, strengthen digital infrastructure, and develop clear guidelines for AI integration to ensure that technological advancements effectively support high-quality audit practices.

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