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The Effect of Audit Information Systems on Audit Quality Control

Novi Fitriani[1,*], Flora Sania[2], Mohamad Hafidz Sagala[3], Neng Sri Wardhani [4]

[1,2,3,4]Department of Accounting, Universitas Pembangunan Panca Budi, Medan, Indonesia
E_mail : [1,*]novifitriyani818@gmail.com, [2]florasania27@gmail.com, [3]hafidzsagala75@gmail.com, [4]nengsri_wardhani@dosen.pancabudi.ac.id
[*]E-mail Corresponding Author: nengsri_wardhani@dosen.pancabudi.ac.id

Abstract

The increasing complexity of organizational processes has intensified the need for effective audit quality control to ensure reliable and accountable audit outcomes. Audit Information Systems (AIS) have emerged as a critical tool in supporting internal audit activities, particularly in managing audit findings and enhancing audit quality control. However, empirical evidence regarding the effectiveness of audit information systems in improving audit quality control remains limited, especially in the context of internal audits. This study aims to examine the effect of audit information systems on audit quality control, with particular attention to the management of audit findings. The research adopts a quantitative approach using data collected from internal auditors through structured questionnaires. Statistical analysis is employed to assess the relationship between audit information systems, audit findings management, and audit quality control. The results indicate that audit information systems have a significant positive effect on audit quality control by improving data accuracy, consistency, transparency, and timeliness of audit processes. Furthermore, effective management of audit findings through information systems contributes to enhanced audit accountability and compliance with audit standards. These findings highlight the strategic role of audit information systems in strengthening internal audit functions and supporting organizational governance. The study contributes to the literature on audit information systems and provides practical implications for audit institutions seeking to improve audit quality control through digital transformation.

Keywords: *Audit Information Systems, Audit Quality Control, Information Systems Audit, Audit Findings, Internal Audit.*

I. INTRODUCTION

The role of internal auditing has evolved significantly in response to increasing demands for transparency, accountability, and effective governance within organizations . Internal audit functions are expected not only to detect irregularities but also to provide assurance regarding the effectiveness of internal controls, risk management, and governance processes. Central to fulfilling these responsibilities is the implementation of robust audit quality control mechanisms. Audit quality control ensures that audit activities are conducted in accordance with established standards, ethical principles, and professional judgment. Weaknesses in audit quality control can lead to inconsistent audit findings, reduced reliability of audit reports, and diminished stakeholder confidence. In many organizations, audit quality control processes are still partially manual, resulting in inefficiencies, data redundancy, and increased risk of errors.

The advancement of information technology has introduced Audit Information Systems (AIS) as a solution to these challenges. Audit information systems facilitate the planning, execution, documentation, and monitoring of audit activities in an integrated digital environment, which aligns with the principles of structured system development and process integration

Through automation and centralized data management, AIS have the potential to enhance the accuracy, consistency, and traceability of audit processes, particularly in managing audit findings and ensuring compliance with audit standards. Despite the growing adoption of audit information systems, prior studies have primarily focused on system development or usability aspects, with limited empirical investigation into their impact on audit quality control. Moreover, research examining how audit findings are managed through audit information systems and how this affects overall audit quality remains scarce. This gap highlights the need for further investigation into the effectiveness of audit information systems in supporting audit quality control.

Accordingly, this study aims to analyze the effect of audit information systems on audit quality control. Specifically, it examines how audit information systems support the management of audit findings and contribute to improved audit quality control within internal audit functions. The findings of this study are expected to provide both theoretical and practical contributions to the fields of audit information systems and internal auditing. From a theoretical perspective, understanding the relationship between audit information systems and audit quality control is essential for extending internal audit literature in the digital era. Audit quality is no longer solely dependent on auditor competence and professional judgment but is increasingly influenced by the quality of information systems that support audit processes (IIA, 2016). Practically, organizations face growing pressure from regulators and stakeholders to ensure

that audit activities are transparent, well-documented, and subject to effective quality control mechanisms. Therefore, investigating the role of audit information systems in this context is both timely and relevant.

II. RESEARCH METHODOLOGY

A. Research Design

This study employs a quantitative research design with an explanatory approach to examine the relationship between audit information systems and audit quality control within internal audit functions. The quantitative approach is selected to allow for objective measurement and statistical testing of the relationships among the research variables *(Sekaran & Bougie, 2016)*. By adopting this design, the study seeks to explain how the implementation of audit information systems influences audit quality control through systematic management of audit findings. The research is cross-sectional in nature, as data are collected at a single point in time from respondents who are actively involved in internal audit activities. This design is considered appropriate for capturing current practices and perceptions related to the use of audit information systems and their impact on audit quality control. The explanatory design further enables the identification of causal relationships between independent and dependent variables based on empirical evidence.

B. Research Variables

The main variables examined in this study include:

1. Audit Information System (AIS): The Audit Information System (AIS) is treated as the independent variable and refers to an integrated information system used to support audit planning, execution, documentation, monitoring, and reporting. The AIS variable is operationalized through indicators such as system integration, data accuracy, accessibility of audit information, and process automation.
2. Audit Findings: Audit Findings are considered an important supporting construct in this study, reflecting the identification, documentation, and follow-up of issues, noncompliance, or weaknesses discovered during audit activities. The effective management of audit findings is viewed as a critical mechanism through which audit information systems influence audit quality control.
3. Audit Quality Control: Audit Quality Control serves as the dependent variable and represents the mechanisms and procedures implemented to ensure that audit activities comply with established audit standards, ethical principles, and quality assurance requirements. Indicators of audit quality control include consistency of audit procedures, adequacy of audit documentation, compliance with audit standards, and effectiveness of supervision and review processes
4. Information Systems Audit: Information Systems Audit refers to the evaluation of controls, data integrity, security, and reliability of information systems that support audit activities. In this research, this variable emphasizes the extent to which audit information systems are subject to adequate system controls, including access control, data validation, and audit trails, which are essential for ensuring trustworthy audit information and supporting audit quality control.
5. Internal Audit: Internal Audit is defined as an independent and objective assurance and consulting activity that adds value to an organization by improving governance, risk management, and internal control processes. This variable reflects the role and effectiveness of the internal audit function in utilizing audit information systems to conduct audits systematically and to ensure audit quality control

C. Data Collection Methods

Data for this study are collected using primary and secondary data sources. Primary data are obtained through a structured questionnaire distributed to internal auditors who utilize audit information systems in their audit activities. The use of questionnaires is widely applied in audit and information systems research because it enables systematic measurement of perceptions and behavioral responses of professionals (Sekaran & Bougie, 2016). The questionnaire is designed based on relevant audit and information systems literature and employs a Likert-scale measurement to capture respondents' perceptions of audit information system effectiveness, audit findings management, and audit quality control. Secondary data, including internal audit guidelines, organizational audit reports, and relevant policy documents, are used to support the research context and enhance understanding of audit system implementation. The combination of primary and secondary data strengthens the validity of the research by providing both empirical evidence and contextual support.Prior to distribution, the questionnaire is reviewed to ensure clarity and content validity. The data collection process is conducted in accordance with ethical research principles, ensuring respondent confidentiality and voluntary participation.

D. Population and Sample

The population of this study consists of internal auditors working in organizations that have implemented audit information systems. A purposive sampling technique is applied to select respondents who are directly involved in audit planning, execution, and quality control processes. Purposive sampling ensures that respondents possess sufficient experience and

familiarity with audit information systems, thereby increasing the relevance and accuracy of the collected data. The population of this study consists of internal auditors working in organizations that have implemented audit information systems as part of their internal audit processes (IIA, 2020). This population is selected because internal auditors are directly involved in audit planning, execution, findings management, and audit quality control activities.

A purposive sampling technique is applied to select respondents who are directly involved in audit planning, execution, and quality control processes. Purposive sampling is suitable when researchers require respondents with specific expertise and experience relevant to the research objectives (Etikan et al., 2016). In this study, respondents are selected based on the criteria of: (1) active involvement in internal audit activities, and (2) direct experience in using audit information systems. This sampling approach ensures that the data collected are relevant and reflect informed perspectives on the research variables.

The use of purposive sampling is considered appropriate for this study, as it allows the selection of respondents with adequate knowledge and experience related to audit information systems and audit quality control. This approach enhances the reliability of the findings and supports meaningful interpretation of the relationships among variables.

E. Data Analysis Techniques

Data analysis is conducted using quantitative statistical techniques. Descriptive analysis is first applied to summarize respondent characteristics and provide an overview of audit information system utilization. Subsequently, inferential analysis is performed to examine the relationship between audit information systems and audit quality control. Regression analysis is employed to assess the magnitude and direction of the influence of audit information systems on audit quality control. Validity and reliability tests, including item validity and internal consistency measures, are conducted to ensure the robustness of the research instrument. Reliability testing, such as Cronbach's alpha, is essential to assess measurement consistency, while validity testing ensures that the instrument accurately measures the intended constructs (Hair et al., 2019). These analytical techniques enable systematic evaluation of the proposed research framework and support reliable interpretation of the study's findings.

III. RESULTS AND DISCUSSION

A. Descriptive Analysis

The descriptive analysis provides an overview of how audit information systems are utilized within internal audit functions and how respondents perceive their role in supporting audit quality control. Overall, the findings demonstrate that audit information systems are actively used to support key audit activities, including audit planning, documentation, monitoring of audit findings, and reporting. This result is consistent with prior studies that emphasize the role of information systems in enhancing the efficiency and effectiveness of internal audit activities (Romney & Steinbart, 2021; Hall, 2016). Respondents generally demonstrate a positive perception of the effectiveness of these systems, particularly in enhancing the structure and consistency of audit processes

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In addition, the descriptive analysis indicates that audit findings are more effectively documented and monitored when supported by audit information systems. This suggests that information systems facilitate not only the identification of audit issues but also the follow-up and resolution processes. These results are consistent with theoretical perspectives in information systems audit, which highlight the role of integrated systems in strengthening internal control environments and enhancing audit traceability (Romney & Steinbart, 2021).

B. Research Findings

The main empirical findings demonstrate a positive relationship between audit information systems and audit quality control. The results reveal that the use of audit information systems contributes to higher levels of audit quality control by improving data accuracy, standardization of audit procedures, and timeliness of audit reporting. These findings suggest that audit information systems serve as an enabling infrastructure for enforcing audit quality policies and procedures. Furthermore, the analysis shows that effective management of audit findings plays a critical role in strengthening audit quality control. Audit information systems support the systematic documentation, classification, and monitoring of audit findings, thereby reducing the risk of unresolved or recurring audit issues. This reinforces the accountability of internal auditors and auditees in addressing identified

weaknesses. The findings support earlier studies in internal audit research, which argue that the quality of audit outcomes is closely linked to how audit findings are managed and followed up. Another significant finding is the positive influence of gender on QFS, where the presence of women in managerial structures or audit committees improves objectivity and the effectiveness of oversight, thus mitigating potential opportunistic managerial behavior (Inapty et al., 2025).

From an information systems audit standpoint, the results imply that the reliability and integrity of audit data are enhanced when audit processes are embedded within a controlled information system environment. This supports the view that audit quality is not solely dependent on auditor competence but is also influenced by the robustness of the systems that support audit activities. Consequently, audit information systems emerge as a critical factor in strengthening internal audit effectiveness and audit quality control mechanisms.

C. Discussion

The findings of this study reinforce the theoretical argument that audit information systems play a strategic role in improving audit quality control within internal audit functions. Consistent with internal control and information systems audit theories, the results appear to indicate that audit quality is enhanced when audit processes are supported by integrated, reliable, and well-controlled information systems. By embedding audit procedures within a digital system, organizations can ensure greater consistency, compliance with audit standards, and traceability of audit evidence. The positive relationship between audit information systems and audit quality control also aligns with prior studies emphasizing the importance of system-based controls in auditing. Audit information systems facilitate continuous monitoring and supervision, which are key elements of audit quality control frameworks. This finding supports the view that audit quality control should be understood as a socio-technical process, where human judgment and technological support interact to produce reliable audit outcomes. By addressing these challenges, auditors have great potential to develop audits that are comprehensive, value-oriented, integrated, and make a valuable contribution (Suyudi, S. S. A., & Wijaya, R. S. A. A. 2024).

Moreover, the role of audit findings as an intervening mechanism highlights the practical importance of findings management in internal audits. The results suggest that audit information systems enhance audit quality not merely by automating tasks but by improving the governance of audit findings. This supports existing literature that positions audit findings as a central output of the audit process and a critical driver of organizational improvement. Overall, the discussion indicates that organizations seeking to improve audit quality control should prioritize the effective implementation and governance of audit information systems. From a research perspective, these findings contribute to the audit information systems literature by empirically demonstrating how system utilization, audit findings management, and audit quality control are interrelated within internal audit contexts. This study explores the factors contributing to audit quality within the corporate context, focusing on the influence of the Audit Committee, auditor specialization, and membership period on the audit process (Kholik, M. F. R. R., & Kuntadi, C. 2024)

IV. CONCLUSION

This study examines the effect of audit information systems on audit quality control within internal audit functions, with particular attention to the management of audit findings. The findings demonstrate that audit information systems have a significant positive influence on audit quality control by enhancing data accuracy, standardization of audit procedures, and the effectiveness of audit findings management. These results confirm that audit information systems play a strategic role in supporting internal audit activities and strengthening audit quality control mechanisms. The study successfully addresses its research objectives by providing empirical evidence that audit information systems contribute to improved audit quality control through systematic documentation, monitoring, and follow-up of audit findings. The integration of internal audit and information systems audit perspectives further highlights that audit quality in digital environments is shaped by both auditor judgment and the robustness of system-based controls. Despite these contributions, this study has several limitations. The use of a cross-sectional research design restricts the ability to capture changes in audit system implementation and audit quality control over time. Additionally, the reliance on perceptual data collected through questionnaires may introduce subjective bias, which could affect the generalizability of the findings across different organizational contexts. Similar methodological limitations have been noted in prior internal audit and information systems research, which emphasizes the need for longitudinal and multi-method approaches to better capture the dynamic nature of audit practices and technological adoption (Alzeban & Gwilliam, 2014). Future research is encouraged to adopt longitudinal designs to examine the long-term impact of audit information systems on audit quality control. Further studies may also incorporate additional variables, such as auditor competence, organizational culture, or information system maturity, to provide a more comprehensive understanding of the factors influencing audit quality in technology-driven audit environments.

V. RECOMMENDATIONS

Based on the findings of this study, organizations are recommended to position audit information systems as a core infrastructure of internal audit functions. Audit information systems should be fully integrated across all stages of the audit process, particularly in the management of audit findings, to enhance audit quality control and reduce recurring audit issues. Continuous training programs are necessary to improve auditors' technical competencies and ensure consistent system utilization. In addition, organizations should conduct periodic information systems audits to evaluate system reliability, data integrity, and audit trail effectiveness. Integrating audit information systems with risk management and compliance systems is also recommended to strengthen governance and real-time monitoring of audit activities. From an academic perspective, future research is encouraged to examine audit quality control as a socio-technical outcome influenced by the interaction between audit information systems and auditor judgment. Further studies may explore the mediating role of audit findings management and the influence of system-level controls on audit quality. Longitudinal and cross-sectoral research designs are recommended to enhance theoretical development and generalizability.

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