Literature Review: Information System Audits as Instruments for Improving Governance and Service Quality in Public Organizations

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Abstract
Information systems audit plays a strategic role in ensuring that information technology use in public organizations is effective, secure, and aligned with institutional objectives. The increasing adoption of information systems in the public service sector, including libraries, requires systematic evaluation mechanisms to control information technology risks and improve service quality. This study aims to examine the role of information systems audit in supporting information technology governance in public organizations by synthesizing findings from previous studies. This research employs a qualitative descriptive approach, drawing on a literature review. The results indicate that information systems audits, particularly those using the COBIT framework, are effective in identifying gaps in IT governance, enhancing accountability in information system management, and supporting continuous improvement of public service quality.

Keywords: Information System Audit; COBIT; IT Governance; Public Services

I. Introduction

The rapid development of information technology has encouraged public organizations to integrate information systems into almost all aspects of public service delivery. Information systems are utilized to improve operational efficiency, expand service accessibility, and enhance transparency and accountability in public organizations (Laudon & Laudon, 2020; Mulyadi et al., 2021).

The growing dependence on information systems is accompanied by increasing complexity of information technology risks, including system failures, weak internal controls, and data security threats. These risks may disrupt service continuity and reduce public trust if not properly managed (De Haes et al., 2020; Rabhani et al., 2020).

Information systems audit serves as an essential mechanism for evaluating the effectiveness, efficiency, and security of information systems. This type of audit not only assesses technical aspects but also examines the alignment between information technology and organizational objectives, thereby supporting sound IT governance practices (ISACA, 2019; Putra et al., 2023).

In the context of public organizations, information systems audit is particularly critical due to its direct relationship with public service quality and the use of public funds. Libraries, as knowledge-based public service institutions, have undergone significant digital transformation, making periodic evaluation of information systems necessary to ensure service reliability and sustainability (Aleksi & Afrina, 2023; Wahyuni et al., 2022).

Based on these considerations, this article aims to examine the role of information systems audit in improving IT governance in public organizations through an analysis of findings from previous studies, with a focus on commonly applied audit frameworks.

II. Research Methodology

2.1 Research Type and Approach
This study adopts a qualitative descriptive approach using a literature-based study method. This approach is selected to provide a comprehensive understanding of concepts, practices, and outcomes related to information systems audits in public organizations.

2.2 Data Sources and Selection Criteria
The data sources consist of national and international peer-reviewed journal articles published between 2015 and 2024. The selected literature focuses on information systems audit, IT governance, and public sector contexts.

2.3 Data Collection Technique
Data were collected through systematic literature searches using academic databases such as Google Scholar, Garuda, and accredited journal portals. Keywords used in the search process include

information systems audit, IT governance, COBIT, and public sector.

2.4 Data Analysis Technique

Data analysis was conducted using content analysis, involving the identification of research objectives, audit frameworks, and key findings from each selected article. The findings were then synthesized to identify patterns, trends, and implications related to information systems audits in public organizations.

III. Results and Discussion
3.1. Result

The results of the literature-based analysis indicate that information systems audit has become an increasingly important research topic within public organizations, particularly in response to the growing reliance on digital systems to support public services. The reviewed studies consistently show that information systems audits are primarily conducted to evaluate the effectiveness of IT governance, internal control mechanisms, and information security practices. Most of the analyzed articles emphasize that audits are used to assess whether information systems align with organizational objectives and comply with established governance standards.

The findings also reveal that the COBIT framework is the most widely applied audit framework in public sector studies. Researchers frequently utilize COBIT 5 and COBIT 2019 to measure process capability levels, assess governance maturity, and identify gaps between expected and actual IT practices. In contrast, other frameworks such as ITIL and ISO/IEC standards are generally used as supporting or complementary tools rather than as the main audit framework.

The results indicate that information systems audits in public organizations, including libraries, commonly identify similar patterns of findings. These include incomplete documentation of IT processes, limited implementation of risk management practices, weak monitoring and evaluation mechanisms, and insufficient competencies of IT personnel. In library-focused studies, audit results often show moderate levels of process capability, suggesting that information systems function adequately but have not yet reached optimal governance maturity.

3.2. Discussion

The results of this study highlight that information systems audit plays a role beyond compliance assessment and serves as a strategic instrument for strengthening IT governance in public organizations. The recurring identification of governance gaps suggests that many public institutions are still in the transitional phase of digital governance, where information systems are operational but not fully integrated into strategic management processes. This finding supports the study's objective of demonstrating the importance of systematic audits in aligning IT operations with organizational goals.

The dominance of the COBIT framework in the reviewed studies indicates its strong suitability for evaluating IT governance in the public sector. COBIT's structured approach enables auditors to generate measurable and comparable results, which are essential for organizations that require transparency and accountability in technology management. This also explains why COBIT is frequently preferred over other frameworks in public sector audit studies.

In the context of libraries and public service institutions, the discussion of audit findings suggests that information systems audits contribute to improvements in system reliability, data security, and service continuity. However, the persistence of weaknesses in human resource management and innovation capacity indicates that technical solutions alone are insufficient to achieve effective IT governance. Organizational commitment, leadership support, and continuous capacity development are critical factors in translating audit recommendations into tangible improvements.

Tthe findings imply that the effectiveness of information systems audit depends on how well audit results are integrated into organizational decision-making and improvement processes. When audit outcomes are systematically followed up, information systems audits can support sustainable digital transformation and enhance the quality of public services. This reinforces the position of information systems audit as a key governance mechanism rather than a standalone evaluative activity.

IV. Conclusion

This study concludes that information systems audit plays a vital role in strengthening IT governance in public organizations. Through systematic evaluation, information systems audits identify weaknesses in IT management, assess alignment between information systems and organizational goals, and provide strategic recommendations for improvement. The literature-based methodology enables a comprehensive synthesis of previous research findings, demonstrating that the COBIT framework is the most commonly applied and effective approach in public sector information systems audits. Therefore, information systems audit should be regarded as a strategic instrument supporting accountability, service quality, and sustainable digital transformation in public organizations.

VI. Recommendation

Based on the findings of this study, public organizations are encouraged to integrate information systems audits as a continuous component of IT governance rather than treating them as periodic evaluative activities. Information systems audits should be aligned with organizational planning, risk management, and decision-making processes to ensure their strategic value. Strong commitment from top management is essential to ensure that audit recommendations are effectively implemented and translated into measurable improvements. In addition, organizations should invest in capacity building for IT and audit personnel to enhance technical competence and understanding of governance frameworks. Future studies are recommended to conduct empirical investigations across diverse public sector institutions to enrich academic evidence and develop best practices in information systems audit implementation.

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