

Evaluating Internal Audit Practices in Public Hospitals: A Systematic Literature Review

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Abstract

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This systematic literature review (2020–2023) analyzes the role of internal audit in strengthening governance, transparency, and service quality in public hospitals. The findings show that effective audit practices depend on well structured units with competent and independent auditors, strong managerial support, and integration with risk management systems. Systematic feedback, benchmarking, and continuous monitoring further enhance audit contributions to service delivery. However, challenges such as resource limitations, complex regulations, and weak auditor independence particularly in developing countries continue to constrain effectiveness. Cross-country comparisons reveal that hospitals in robust governance environments integrate auditing more successfully into decision-making, while those in weaker contexts face persistent barriers. The review concludes that advancing internal audit requires a holistic approach that combines capacity building, governance alignment, and digital readiness to transform auditing into a strategic driver of healthcare quality and accountability.

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1. Introduction

Internal audit plays a critical role in enhancing governance, transparency, and operational efficiency in public healthcare facilities such as hospitals. A systematic and well-structured internal audit process not only ensures compliance with regulations but also drives continuous quality improvement, risk mitigation, and stronger accountability mechanisms. While numerous studies have examined internal auditing within the broader public sector, the unique operational and regulatory complexities of public hospitals demand a more focused exploration. For instance, Nerantzidis et al. (2022) conducted a systematic review of internal audit in the public sector, highlighting its contribution to governance and performance improvement; however, the healthcare context poses distinct challenges, including resource constraints, auditor independence, and the integration of audit findings into clinical and administrative decision-making.

Empirical evidence from various contexts shows that public hospitals often face structural and capacity limitations in implementing effective internal audits. In Indonesia, Arso and Putro (2022) found that regional public hospitals struggle with staffing shortages, overlapping responsibilities, and unclear audit structures, which undermine audit effectiveness. Similarly, a study in Nigeria revealed a positive link between internal audit and operational performance in public teaching hospitals, yet issues of auditor independence and insufficient resources remain persistent obstacles (Olutokunbo & Opadijo, 2023). Beyond country-specific contexts, cross-national comparisons provide further insights. Rodakos et al. (2021) found that European public hospitals tend to integrate internal audit functions more closely with risk

management, while non-European hospitals often contend with higher levels of corruption, lower transparency, and limited audit competencies.

Given these diverse findings, there is a pressing need to consolidate existing evidence to better understand the state of internal audit practices in public hospitals globally. This systematic literature review aims to synthesize research published between 2020 and 2023, focusing on four main areas: (1) the structure and competencies of internal audit units, (2) the effectiveness of internal audit in improving governance and service quality, (3) contextual challenges such as regulatory environments and resource constraints, and (4) cross-country variations in implementation. By identifying best practices and recurring barriers, this study seeks to contribute to the ongoing discourse on strengthening internal audit functions in public hospitals, ultimately promoting better governance, accountability, and patient care outcomes.

2. Literature Review

Internal audit in public hospitals is increasingly recognized as a critical mechanism for strengthening governance, transparency, and risk management, while simultaneously driving improvements in clinical and operational quality. Recent evidence highlights that its effectiveness largely depends on structural factors such as the size and competence of audit units, auditor independence, top management support, and integration with organizational risk management. A realist review of hospital auditing emphasizes that internal, clinical, and peer audits produce tangible quality improvements when they are accompanied by clear, comparative, and

repeated feedback, followed by concrete action plans; conversely, their impact diminishes when recommendations are not embedded into clinical or administrative decision-making processes or when organizational learning culture is weak (Hut-Mossel et al., 2021). In the broader public sector context, studies demonstrate that empowering conditions including management support, collaboration with external auditors, and clear role definitions significantly enhance internal audit effectiveness, a finding highly relevant to public hospitals that often operate under resource constraints and role overlaps (Alqudah et al., 2023).

The shift toward digital healthcare services also brings new demands on internal audit functions. A case study in e-Health auditing suggests that aligning audit practices with International Standards for the Professional Practice of Internal Auditing, focusing on process and IT risk controls, and delivering actionable reports to clinical management are crucial for maintaining audit relevance in a digital transformation era (Ferreira et al., 2022). Moreover, the audit and feedback (A&F) mechanism has emerged as a central driver of audit impact in healthcare. Well designed A&F interventions featuring benchmarking, structured improvement plans, and ongoing monitoring have been shown to yield small-to-moderate improvements in clinical practice and can be operationalized at hospital scale to drive systemic organizational improvements (Ielo et al., 2023; Sarkies et al., 2023).

In developing countries, context specific challenges remain prominent. In Nigeria, research on public hospitals found that strengthening internal control systems correlates with better financial management, yet auditor independence and limited resources persist as barriers to audit performance (Olutokunbo & Opadijo,

2023). Similarly, a study in Greek public hospitals revealed that although internal control systems and auditor support are valued by management and staff, their implementation is often procedural and insufficiently integrated into functional clinical units, underscoring the need for stronger links between auditing, risk management, and clinical quality improvement (Petsi, 2023).

Overall, literature from 2020 to 2023 converges on four key themes. First, structural and competency factors capacity, skills, and independence are essential prerequisites for effective auditing. Second, the impact of auditing on governance and service quality is maximized when recommendations are followed through with robust A&F, continuous monitoring, and managerial commitment. Third, contextual barriers such as staffing shortages, budget constraints, and regulatory complexity often hinder the implementation of audit findings. Fourth, cross-country variations show that hospitals in settings with stronger governance tend to integrate auditing with risk management and quality improvement, while those in lower-transparency contexts face challenges of independence and limited technical capacity. These insights highlight that strengthening internal audit functions in public hospitals requires a combined focus on organizational design, auditor competence, integration with quality and risk systems, and evidence-based A&F frameworks to ensure that recommendations translate into better governance, accountability, and patient care outcomes.

3. Methods

This study employed a Systematic Literature Review (SLR) approach to synthesize and critically analyze recent empirical research on internal audit practices in public hospitals. The review focused on studies published between January 2020 and December 2023 to capture contemporary developments in healthcare governance, particularly in response to increasing demands for transparency, accountability, and digital transformation in the sector. Relevant literature was identified through a comprehensive search of major academic databases, including Scopus, Web of Science, PubMed, and Google Scholar, using a combination of keywords such as “internal audit,” “public hospitals,” “healthcare governance,” “audit effectiveness,” and “audit challenges,” alongside Boolean operators. Additional studies were located through manual searches of the reference lists of selected articles.

To ensure the inclusion of high quality and relevant studies, only peer reviewed empirical research, case studies, or systematic reviews written in English and focusing on public hospitals were considered. Eligible studies were required to address at least one of the four thematic areas: (1) the structure and competencies of internal audit units, (2) the effectiveness of internal audit in improving governance and service quality, (3) contextual challenges such as regulatory environments and resource constraints, and (4) cross-country variations in implementation. Studies that examined private hospitals, non-healthcare public sector institutions without specific reference to hospital settings, or theoretical works without empirical evidence were excluded.

The screening and selection process adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. After removing duplicates, titles and abstracts were screened against the inclusion criteria, followed by a full-text review to confirm eligibility. For each selected study, data were extracted on authorship, publication year, country or region of focus, research design, methodology, and key findings relevant to the four thematic areas. A thematic analysis was then conducted to identify recurring patterns, emerging trends, and cross-country differences in internal audit practices. Methodological quality was assessed using established appraisal tools appropriate for the research design of each study, such as the Critical Appraisal Skills Programme (CASP) checklist for qualitative research and the Joanna Briggs Institute (JBI) checklist for case studies. Only studies meeting acceptable quality standards were included in the final synthesis. Since the review relied exclusively on secondary data from published sources, ethical approval was not required; however, all sources were appropriately cited to maintain academic integrity.

4. Results and Discussion

The systematic review identified consistent evidence that internal audit plays a pivotal role in strengthening governance, transparency, and operational performance in public hospitals. Across the reviewed studies, four recurring themes emerged: structural and competency factors, the effectiveness of internal audit in improving governance and service quality, contextual challenges, and cross-country variations in implementation.

First, the structure and competencies of internal audit units were found to be critical determinants of audit effectiveness. Studies indicated that adequately staffed audit teams with strong technical skills, independence, and clear role definitions are more likely to produce impactful recommendations (Alqudah et al., 2023). Hospitals with robust internal audit structures tend to integrate audit processes more effectively into both administrative and clinical operations, thereby fostering a culture of accountability and continuous improvement. Conversely, limited staffing, overlapping responsibilities, and lack of independence often undermine audit outcomes (Arso & Putro, 2023).

Second, the effectiveness of internal audit in enhancing governance and service quality was consistently linked to strong managerial support, integration with risk management systems, and the use of systematic audit and feedback (A&F) mechanisms. Research shows that when audit findings are followed by benchmarking, structured action plans, and continuous monitoring, measurable improvements in service quality and operational efficiency can be achieved (Sarkies et al., 2023). In contrast, audits that fail to translate recommendations into concrete actions due to weak follow-up or lack of organizational commitment tend to have limited impact (Petsi, 2023).

Third, contextual challenges such as resource constraints, regulatory complexity, and auditor independence remain significant barriers, particularly in developing countries. In Nigeria, for instance, although internal audits correlate positively with financial management performance, auditor independence and insufficient resources are persistent issues (Olutokunbo & Opadijo, 2023). Similarly,

Greek public hospitals often implement internal controls in a procedural rather than strategic manner, limiting their integration with clinical quality improvement initiatives (Petsi, 2023).

Finally, cross country variations highlight differences in the institutionalization of internal audit practices. European public hospitals often demonstrate stronger integration of auditing with risk management and governance systems, supported by higher transparency standards and stronger regulatory frameworks (Rodakos et al., 2021). In contrast, hospitals in lower-transparency environments face more significant challenges in ensuring auditor independence and building technical capacity. The rise of digital health services also introduces new requirements for internal audits, with studies emphasizing the need to align audit processes with international standards and incorporate IT risk controls to remain relevant in the digital era (Ferreira et al., 2022).

Overall, the findings reinforce that strengthening internal audit functions in public hospitals requires a multi-faceted approach, combining structural improvements, capacity building, managerial engagement, and systematic follow-up mechanisms. By addressing contextual barriers and leveraging best practices identified across different governance environments, public hospitals can enhance the role of internal audit as a driver of governance, accountability, and service quality (Sarkies et al., 2023).

5. Conclusion

This systematic literature review highlights that internal audit is a vital mechanism for enhancing governance, transparency, and service quality in public hospitals. Its effectiveness depends on having well-structured audit units, competent and independent auditors, strong managerial commitment, and integration with risk management and quality improvement systems. Audit processes that apply structured feedback, benchmarking, and continuous monitoring tend to achieve more significant performance improvements.

Nonetheless, challenges such as limited resources, regulatory complexity, and lack of auditor independence still hinder optimal performance, especially in developing countries. Hospitals operating in environments with stronger governance and higher transparency are generally more successful in embedding audits into decision-making processes. The growing adoption of digital healthcare also calls for audits to incorporate IT risk controls and align with global standards.

Strengthening internal audit functions requires a comprehensive approach that builds structural capacity, develops auditor skills, promotes accountability, and ensures consistent follow-up on recommendations. By implementing these strategies, public hospitals can transform internal auditing into a strategic driver of organizational performance and improved patient care.

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