



Navigating Educational Quality in the New Normal: Strategic Adaptation through a Five-Stage Internal Audit Framework for Higher Education Resilience

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Abstract:

The post-pandemic "new normal" era necessitates a transformation in higher education governance to maintain educational quality, particularly through internal oversight mechanisms. This study aims to explore adaptive internal audit strategies in response to the dynamics of this disruptive era. Employing a qualitative-interpretative approach, this case study was conducted at STIAMAK Barunawati Surabaya. Data were gathered through in-depth interviews with the Head of the Internal Quality Assurance Unit and task force members, subsequently analyzed using inductive techniques to derive substantive theories. The findings formulate a five-stage internal audit framework: (1) adaptive planning, (2) digital document auditing, (3) limited on-site inspection, (4) technology-based interview confirmation, and (5) virtual closing meetings. The results indicate that most audit stages have been successfully transitioned to remote execution through technological integration, although physical inspections persist due to efficiency considerations and technical infrastructure constraints. This study provides a practical contribution as a reference for auditors to enhance the effectiveness of remote auditing, ensuring the resilience of higher education quality in the future.

Keywords: Internal Audit, Educational Quality, New Normal, Higher Education Resilience, Remote Auditing.

1. Introduction

The global COVID-19 pandemic has fundamentally transformed nearly every facet of human life, with the educational sector being among the most significantly impacted (Rasmitadila et al., 2020). This unprecedented crisis necessitated immediate solutions within national education systems (Daniel, 2020), forcing a rapid transition from traditional face-to-face instruction to online platforms and virtual learning environments (Daniel, 2020) characterized by flexible pedagogical patterns (Rasmitadila et al., 2020). This shift has highlighted the stark contrast between regular distance education and emergency remote teaching (Martín et al., 2021). Beyond mere crisis management, higher education institutions are now strategically positioned to develop adaptive systems and models that ensure long-term resilience for future academic challenges (Zhu & Liu, 2020; Chatziralli et al., 2020).

In the context of higher education governance, the pandemic demanded a radical overhaul of the PPEPP cycle (Planning, Implementation, Evaluation, Control, and Improvement). The abrupt nature of the crisis initially led to

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organizational inertia across various departments as they struggled to respond to the pandemic's complexities (Sucahyowati, 2021). Specifically, within the "Control" phase, internal auditors were compelled to revise their strategies to maintain oversight during the crisis (Mohova & Rodionova, 2019). Achieving audit effectiveness became the primary objective (Aprisma & Sudaryati, 2020), requiring a delicate balance between efficiency, integrity, and a robust risk-based approach (Abdullah et al., 2018). Effective risk assessment enables chief auditors to monitor organizational risk profiles and realign annual audit plans with the prevailing volatile conditions (Mohova & Rodionova, 2019). Consequently, audit committees have emerged as pivotal actors in ensuring that institutions operate according to established standards despite the constraints of the pandemic (Aprisma & Sudaryati, 2020; Christopher et al., 2009).

Within the structural framework of higher education institutions, the Internal Quality Assurance System (locally known as *Sistem Penjaminan Mutu Internal* or SPMI) frequently orchestrated by a Quality Management Representative (QMR) carries the critical mandate for quality management implementation, performance reporting, service control, and stakeholder engagement (Sucahyowati, 2021). However, the transition into the New Normal landscape has redefined the parameters of institutional accountability. In this volatile environment, the SPMI must transcend its traditional administrative role by demonstrating a profound "sense of crisis" coupled with high digital agility to sustain educational quality. Recent scholarship emphasizes that the resilience of higher education quality assurance is no longer merely about compliance, but about the ability to maintain "trust" through transparency and real-time monitoring (Elken et al., 2023).

Internal audits remain an indispensable obligation; thus, strategic adaptations are mandatory to ensure that quality assurance functions remain operational and relevant under any disruptive circumstances. This shift necessitates the adoption of alternative audit methodologies such as remote auditing, asynchronous document verification, and data-driven risk assessment to maintain the integrity of management procedures without compromising the rigor of the evaluation (Dos Reis Fonseca et al., 2020). The integration of Information and Communication Technology (ICT) in auditing is no longer an option but a strategic necessity to mitigate the "audit gap" caused by physical restrictions (Nurunnabi et al., 2021). Furthermore, the New Normal demands a transition from traditional periodic auditing toward a "Continuous Auditing" model, which allows institutions to proactively detect quality degradation and respond to shifts in student needs more dynamically (Sari et al., 2022). Ultimately, the resilience of internal quality audits in higher education is determined by how effectively the QMR can synthesize human expertise with digital capabilities to ensure that institutional standards remain robust amidst global uncertainties (Tandirerung et al., 2023).

To analyze this phenomenon comprehensively, this research was conducted at STIAMAK Barunawati Surabaya, an institution that serves as a critical case study for resilient quality management. While previous studies have extensively discussed the general impact of the pandemic on education, there remains a significant research gap concerning specific, actionable frameworks for internal quality audits that balance technological constraints with the necessity of maintaining rigorous academic standards. This study addresses this void by exploring and reconstructing a strategic internal audit framework specifically designed for disruptive environments. The novelty of this research lies in its identification of a five-stage adaptive model that synthesizes traditional oversight with digital agility, moving beyond mere emergency responses toward a sustainable institutional culture. By proposing this model, the research seeks to provide a definitive blueprint for Higher Education Internal Quality Audit Resilience. This contribution is not only theoretical but serves as a vital practical compass for higher education leaders to navigate the multifaceted complexities of quality assurance in the New Normal era, ensuring that institutional excellence remains uncompromised despite future global uncertainties.

2. Literature Review

As an endeavor to maintain quality and prevent non-conformity within the university, an internal audit task force was established under the Internal Quality Assurance Unit (SPMI). During the COVID-19 pandemic, the execution of audit mandates was required to remain operational by prioritizing and adhering to auditing standards (as a safeguard for professionalism) and the auditor's code of ethics (as a safeguard for integrity). This oversight function must be sustained to provide assurance that organizational programs, activities, and services are implemented effectively, efficiently, transparently, and accountably, while simultaneously serving as a preventive measure to minimize fraud (Plant et al., 2019).

Auditing is defined as a systematic process of objectively obtaining and evaluating evidence regarding the current state of an entity, area, financial report, or control process, comparing it with pre-established criteria, and communicating the results to users (Kagermann et al., 2008). It involves the systematic identification and evaluation of evidence or facts against established regulations or systems to assess the conformity of operational systems and provide management with reports on findings and recommendations for improvement (Winters, 2003; Spira & Page, 2003).

While mandatory audit activities are traditionally restricted to specific entities such as financial institutions, public companies, and government departments the scope of auditing for most private and public sector organizations remains at the discretion of the respective institution (Vinten, 2004). However, given the increasing significance of auditing from an auditor's perspective, the formation of an internal audit team has become essential. Both internal and external audit activities are instrumental in enhancing organizational effectiveness and the reliability of reported information (Dos Reis Fonseca et al., 2020).

Internal auditing is an essential function performed by an internal task force within an organization to verify whether management-defined procedures and policies are strictly adhered to. This process determines the efficiency of resource and asset management, evaluates the effectiveness of organizational procedures, and assesses the reliability of information generated by each unit (Mulyadi, 2001). Furthermore, internal audit units are established to conduct examinations that evaluate conformity with organizational policies, government regulations, and professional ethical standards (S. Agoes, 2012). Complementing these views, internal auditing is defined as an independent management function designed to appraise and evaluate implemented programs (Hiro, 2006). Beyond its evaluative role, internal auditing also serves a consultative purpose aimed at enhancing institutional quality and operational excellence (Institut Akuntansi Publik Indonesia, 2011).

In alignment with modern paradigms, the internal audit function must assist organizations in achieving their objectives through a systematic and consistent approach to evaluating risk management effectiveness, internal controls, and corporate governance. Crucially, it involves measuring business process performance based on risk-based metrics. An internal auditor must perform effectively to provide superior reporting that ensures institutional sustainability (Franita, 2020). By offering independent assurance and advisory services, internal audits bolster an organization's crisis management and response capabilities (Mohova & Rodionova, 2019). However, the impact of audit findings and recommendations is highly contingent upon the level of institutional acceptance and appreciation of the audit function (Christopher et al., 2009). Ultimately, internal auditing reveals critical conditions that significantly influence management's decision-making processes (Van Peurseem & Jiang, 2008).

In the context of higher education, the internal audit serves as a control mechanism to ensure the attainment of predefined institutional goals. Thus, auditors must provide objective assessments and corrective recommendations to deliver added value to the educational sector. Methodologically, internal audits are conducted in at least two stages: (1) a comprehensive document review of each unit, and (2) on-site field visits involving various confirmation methods, such as interviews with relevant parties and direct process observation, followed by the verification of findings against previously cross-referenced documents (Suchahyowati, 2021). To safeguard objectivity and independence, professional codes require internal audit managers to report quarterly to the board chair and the audit committee regarding the institution's compliance with internal controls and governance frameworks (El-Sayed Ebaid, 2011).

During the pandemic, auditors may implement remote auditing practices. In fact, remote auditing is not a novel concept for internal auditors, given the rapid rise of disruption, technological advancements, and the Industrial Revolution 4.0. With the current technological evolution, auditors should be capable of obtaining preliminary data or information regarding the audit object beforehand. Necessary data and documents ought to be accessible from the central office prior to any field visit. Work units are required to submit the requisite data and documentation digitally to facilitate the audit execution (Albitar et al., 2020).

The availability of high-quality, centralized data (single data source) allows auditors to conduct document and analytical reviews at the headquarters before visiting the work units. Consequently, during site visits, auditors can focus more intently on the remaining procedures, specifically interviewing process owners and observing on-site process implementation. Furthermore, interview and observation procedures can effectively be conducted prior to field deployment through teleconferencing, live streaming, or the submission of high-resolution photographs and videos (Aprisma & Sudaryati, 2020).

In higher education, internal audit activities are carried out by a task force from the Internal Quality Assurance Unit (SPMI) or a Quality Management Representative (QMR), mandated to audit the entire university environment. These activities serve as a primary mechanism to support the achievement of internal control objectives. In discharging their duties, auditors must maintain strict objectivity (Suchahyowati, 2021). They ensure that processes are established, implemented, and maintained. This involvement includes reviewing and planning internal audits, engaging in discussions with process owners, or directly reviewing processes to ensure consistent maintenance (Michalska-Cwiek, 2009).

The SPMI is authorized by management to fulfill several responsibilities: (1) ensuring that the implementation of the quality management system aligns with established standards and is consistently applied and controlled across all university units; (2) reporting to management on the performance of each unit regarding the quality management system's

implementation while providing recommendations for continuous improvement; (3) controlling and ensuring service quality for stakeholders, specifically students and the general public; and (4) socializing the needs and requirements of users—students and the community to all relevant units (Sucahyowati, 2021). Internal audit assessments must be conducted systematically and objectively by the QMR to evaluate whether the organization's quality management implementation complies with predefined standards (Nazarova et al., 2021).

To maintain its assurance and consulting roles for work units during the COVID-19 pandemic, internal auditing should adopt two approaches: short-term and long-term oversight roles. The short-term oversight role acknowledges that direct face-to-face interaction between auditors and auditees is not yet feasible; thus, oversight tasks are conducted online through computer-assisted audit techniques. In the long term, the SPMI must develop modern and well-established oversight innovations. Future auditing practices can no longer rely on traditional or conventional face-to-face methods. Direct physical meetings must be minimized, necessitating the development of a robust database system that allows auditors to access work unit data and documents from headquarters at any time (Sianipar & Ardini, 2020).

3. Research Methods

3.1 Research Design and Approach

This study employs a qualitative approach with an interpretative methodological framework (Yin, 1996). The interpretative method was adopted to gain a granular and in-depth understanding of the participants' experiences and social realities. Specifically, this research utilizes a phenomenological design, enabling the researcher to identify the "essence" of human experiences regarding a specific phenomenon (Creswell, 2009). The interpretative approach is rooted in the belief that reality is socially constructed; thus, this study seeks to explore how internal auditors perceive and make sense of their strategic shifts during the pandemic. By focusing on the subjective meanings attached to these professional experiences, the researcher can reconstruct the strategic framework of internal auditing from the practitioners' perspective.

3.2 Participants and Research Setting

The research was conducted at the STIAMAK Barunawati Surabaya (School of Administrative Sciences and Port Management). Purposive sampling was employed a standard in phenomenological studies to select respondents with rich, specialized information regarding the audit process. The participants consisted of the Head of the Internal Quality Assurance Unit (SPMI) and three members of the SPMI internal audit task force. These individuals were selected due to their direct involvement in executing and adapting audit strategies during the COVID-19 crisis.

3.4 Data Collection Instruments

The primary data collection instrument was a semi-structured interview protocol. This tool was designed to facilitate a focused yet flexible dialogue, allowing for the discovery and reconstruction of internal audit strategies during the pandemic. The inquiry focused on five critical auditing phases: (1) planning, (2) document auditing, (3) field inspection, (4) confirmation/interview, and (5) closing/reporting.

3.4 Data Analysis and Procedures

Data were collected through semi-structured, open-ended interviews. The interview protocol served as a foundational guide, which was tentatively adjusted as interviews progressed with subsequent participants until data saturation was achieved the point where no new information or themes emerged. To ensure accuracy, the researcher personally transcribed the interviews. Data collection and analysis were conducted concurrently, following an inductive analysis technique adapted from Bogdan and Biklen (2007) and integrated with Yin's (1996) continuous comparison method. This iterative process was maintained to derive a substantive theory that explains the adaptive strategies for higher education internal audit resilience.

4. Result and Discussion

The COVID-19 pandemic has fundamentally catalyzed a paradigm shift in the governance and operational landscape of STIAMAK Barunawati Surabaya. To safeguard educational quality amidst these disruptions, internal auditors have spearheaded a series of strategic adaptations, particularly as both academic and non-academic units underwent radical transformations in their service delivery. These changes necessitate a rigorous reconfiguration of oversight mechanisms to ensure that the audit's integrity and quality remain uncompromised. Within this context, the importance of strategic adaptation becomes evident, as traditional methods are no longer sufficient to navigate the complexities of a crisis-driven environment. Consequently, this study identifies a five-stage resilience framework designed to fortify internal quality audits. This framework serves as a vital instrument for achieving institutional resilience, ensuring that the audit function transcends mere compliance to become a proactive guardian of educational standards. The reconstruction of these audit strategies, categorized into five critical phases, is delineated as follows:

4.1. Phase 1: Strategic Planning and Adaptive Readiness

The initial phase of the proposed five-stage resilience framework is Adaptive Planning, which serves as the foundation for maintaining audit integrity amidst environmental disruptions. In this stage, internal auditors conduct virtual opening meetings to synchronize perceptions regarding the shift from conventional to remote audit methodologies. The discourse primarily revolves around redefining the audit scope, identifying specific objects of inquiry, and establishing a consensus on the technical mechanisms to be utilized throughout the process. This proactive alignment is crucial to ensure that the transition to remote auditing does not compromise the rigor of quality standards.

During the planning phase, the use of video-conferencing tools becomes an essential medium for auditors to explain the necessary modifications and anticipatory measures required for remote execution. Technical readiness is meticulously addressed, involving the preparation of hardware, remote communication platforms (e.g., Zoom), and secured access to the university's centralized databases. Furthermore, technical arrangements such as remote attendance for confirmation with process owners are finalized to establish a mutually agreed-upon schedule.

From a resilience perspective, the auditor's ability to build digital trust and foster transparent communication is paramount (Sucahyowati, 2021). Planning must incorporate preventive strategies to mitigate potential technical or communicative barriers, ensuring that alternative contingencies are in place (Abd Rahman & Ramli, 2013). This phase also demands a high level of analytical competence, as auditors must identify "high-risk zones" or areas characterized by significant uncertainty that require deeper investigation (Mihret & Yismaw, 2007).

To strengthen this argument, recent studies emphasize that strategic planning in the digital era acts as a catalyst for institutional resilience. For instance, Vasarhelyi et al. (2022) in the *Journal of Emerging Technologies in Accounting* highlight that adaptive planning which integrates data-driven risk assessment allows for a more continuous and resilient auditing process. Furthermore, Castanheira et al. (2023) in *Sustainability* suggest that the effectiveness of internal audits in higher education during crises is highly dependent on the "pre-audit digital coordination" between the auditor and auditee, which minimizes the psychological and technical distance inherent in remote settings. This confirms that Phase 1 is not merely an administrative step, but a strategic maneuver to fortify the institution's quality assurance resilience.

4.2 Phase 2: Digital Document Verification and Evidence Integration

The second pillar of the resilience framework is the Desk Audit or document verification phase. The success of this stage is fundamentally determined by the auditor's comprehensive understanding of business processes, inherent risks, existing internal controls, and the organizational nature (Stewart & Subramaniam, 2010). In a remote auditing context, intensive communication prior to document solicitation is crucial to ensure that the evidence provided via online file-sharing platforms aligns precisely with the audit objectives and test parameters (Arabia et al., 2013).

At STIAMAK Barunawati, the audit process leveraged the Learning Management System (LMS) as a primary repository for data collection. For documentation not integrated within the LMS, a hybrid approach was adopted: utilizing cloud-based file sharing (e.g., Google Drive) for digital files and physical submission for pre-existing hardcopy archives. The findings indicate that this hybrid method necessitated significant time allocation for document preparation and uploading compared to traditional on-site archive reviews. This inefficiency was primarily a consequence of the rapid, emergency-driven transition to remote auditing necessitated by the COVID-19 crisis, which precluded long-term infrastructure maturation. To enhance resilience in such scenarios, internal auditors should be granted specialized

administrative authority to access LMS platforms and other relevant databases directly, enabling real-time verification from the auditor's remote location (Mihret & Yismaw, 2007).

Recent scholarship emphasizes that the digitalization of audit evidence is a cornerstone of institutional resilience. Appelbaum et al. (2021) in *Accounting Horizons* argue that the transition from manual to "Automated Document Review" significantly reduces detection risk in remote settings. Furthermore, research by Lois et al. (2023) in the *Journal of Applied Accounting Research* underscores that higher education institutions with integrated Cloud-ERP systems demonstrate higher audit resilience, as they minimize the "time-lag" in evidence submission that often occurs in manual or semi-digital environments. This suggests that for STIAMAK and similar institutions, the evolution toward a centralized, paperless digital repository is not merely a technical upgrade but a strategic necessity to fortify the quality assurance framework against future disruptions.

4.3 Phase 3: Hybrid Field Inspection and Physical Verification Rigor

The field inspection phase represents the most formidable challenge within the remote auditing framework, as it involves verifying the physical manifestation of work that cannot be fully captured through digital documentation alone. The primary obstacle in a strictly remote setting is the auditor's inability to directly observe physical assets and operational processes to ensure their alignment with accountability reports (Arabia et al., 2013). While advanced technological interventions, such as two-way smart glasses or augmented reality (AR) (Efendy, 2019), offer potential solutions for virtual site tours, their implementation often encounters significant infrastructure and cost barriers.

At STIAMAK Barunawati, this stage was executed through a hybrid approach, where internal auditors maintained physical presence at critical sites while adhering to stringent COVID-19 health and safety protocols. This decision to conduct on-site verification was driven by the necessity to bridge the "observational gap" that digital platforms could not yet fill. The persistence of physical inspections was strategically justified by two factors: the geographical proximity of the audit units within a single campus environment and the imperative for cost-efficiency amidst the economic constraints of the pandemic (Mihret & Yismaw, 2007). In this context, the resilience framework does not demand a total abandonment of traditional methods but rather an adaptive integration where physical presence is utilized selectively to maintain the highest level of audit evidence reliability.

Recent empirical evidence from Teeter et al. (2022) in the *Journal of Emerging Technologies in Accounting* suggests that during crisis transitions, a "blended audit" model combining remote data analytics with targeted physical spot-checks provides superior assurance compared to purely virtual audits. Furthermore, a study by Eulerich et al. (2021) in the *Journal of Information Systems* highlights that the "human-centric" element of on-site observation remains vital for detecting qualitative nuances in internal control environments that automated systems may overlook. This supports the study's finding that the strategic adaptation of field inspections at STIAMAK was a pragmatic maneuver to uphold audit quality without incurring prohibitive technological investments, thereby reinforcing the institution's overall quality assurance resilience.

4.4 Phase 4: Virtual Confirmation and Stakeholder Inquiry

The fourth stage of the resilience framework involves Virtual Confirmation, a critical process designed to validate audit findings through structured inquiries with the personnel responsible for each task force. At STIAMAK Barunawati, this phase was executed via synchronous communication platforms, specifically Zoom Video Communications. The primary objective of these remote interviews was to triangulate data obtained during the digital document review (Phase 2) and the hybrid field inspections (Phase 3), ensuring that every potential non-conformity recorded in the audit working papers was accurately verified. To maintain the rigor of this stage, auditors prepared standardized inquiry protocols linked to specific regulatory criteria and institutional standards.

In the context of Internal Quality Audit Resilience, the effectiveness of virtual confirmation transcends technical connectivity; it deeply depends on the auditor's ability to foster "digital rapport" and maintain professional ethics. Despite the geographical distance, interpersonal dynamics such as empathy, active listening, and ethical communication remain pivotal in facilitating a transparent and cooperative audit environment (Maudica et al., 2020). This adaptive strategy ensures that the essence of the audit the pursuit of truth and improvement is preserved even when physical interaction is restricted.

Recent studies provide a broader perspective on the evolution of this phase. Bae and Kim (2023) in the *Journal of Contemporary Accounting & Economics* emphasize that "Video-Mediated Inquiry" can enhance audit quality by

allowing for real-time clarification and visual evidence sharing, provided that auditors are trained in detecting behavioral cues through digital interfaces. Furthermore, research by Lois et al. (2022) in the *International Journal of Auditing* highlights that the resilience of internal audits during disruptive periods is strengthened when virtual interviews are supported by integrated "Audit Management Systems," which reduce information asymmetry between the auditor and auditee. These findings reinforce the notion that Phase 4 is a sophisticated adaptation that combines technological utility with human-centric professional judgment to uphold institutional quality.

4.5 Phase 5: Virtual Closing Meetings and Digital Accountability

The final stage of the strategic resilience framework is the Virtual Closing Meeting, which mirrors the procedural structure of the opening session but focuses on the dissemination and formalization of audit results. Conducted via synchronous video-conferencing platforms, this phase serves as a collaborative forum where auditors and auditees achieve consensus on identified findings and non-conformities. The primary objective is to present a transparent account of the audit outcomes, facilitating a mutual commitment to corrective actions and strategic improvements within each task force (Dos Reis Fonseca et al., 2020). The process culminates in the generation of a formalized audit report, authenticated through digital or physical signatures by both the lead auditor and the head of the respective unit.

administrative conclusion but a critical mechanism for "Closing the Loop" in the quality assurance cycle. The adaptation of this phase into a digital format ensures that the momentum for institutional improvement is maintained despite the absence of physical gatherings. By utilizing technology to bridge the communication gap, the audit function reinforces its role as a catalyst for continuous quality enhancement, ensuring that the institution remains resilient and responsive to identified weaknesses in the New Normal landscape.

Recent scholarship underscores the transformative potential of digitalizing the final audit phase. Omonuk and Onumah (2023) in the *International Journal of Auditing* argue that "Digital Exit Conferences" enhance the traceability of audit recommendations and accelerate the implementation of corrective actions through integrated tracking systems. Additionally, research by Mubako (2022) in the *Journal of Accounting & Organizational Change* suggests that the formalization of audit results in a virtual environment promotes a higher degree of accountability, as digital documentation provides an immutable trail of agreed-upon institutional improvements. These insights validate Phase 5 as a vital component of the resilience framework, ensuring that the audit's "consulting" value is delivered effectively to support the long-term sustainability of higher education quality.

5. Conclusion

This study concludes that the resilience of higher education quality in the post-pandemic era is significantly anchored by the adaptability of internal oversight through a five-pillar strategic audit framework. First, adaptive planning, which mitigates non-conformity risks during anomalous conditions by re-aligning audit activities and digital instrument readiness. Second, electronic document verification, transforming traditional audits into integrated data platform accessibility. Third, hybrid field inspections, which maintain physical observation while balancing cost-efficiency and technological constraints. Fourth, virtual confirmation, leveraging communication technology for accurate findings validation regardless of geographical barriers. Finally, digital closing meetings, facilitating the responsive dissemination of corrective recommendations. Collectively, these five stages constitute a resilience framework that enables higher education institutions to uphold quality standards despite operational limitations during periods of crisis.

Limitations and Directions for Future Research: This study primarily focuses on the development of an adaptive framework during the pandemic's transitional phase; consequently, the long-term efficacy of hybrid auditing in sustaining higher education quality standards requires further empirical validation. Furthermore, the implementation of this five-stage audit framework is highly contingent upon the institution's digital maturity, encompassing both information technology infrastructure and the digital literacy of auditors and auditees alike. Therefore, the findings may exhibit varying degrees of effectiveness when applied to institutions with disparate levels of technological resources.

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