# Strategic Interventions in IT Department to Enhance Handling of IT Audit Requests for a Global Medtech Company

Yang Qingxia[1], Nazimah Hussin[1], Teo Wei Huei[2], Gong Hong[3], Tan Nan Jian[4], Doong Yee Jiun[5]

[1]Azman Hashim International Business School, Universiti Teknologi Malaysia, Malaysia, [2]Foon Yew High School, Malaysia, [3]Zhonghe Education Technology(Nanjing) Co.,Ltd., China, [4]Kimlun Sdn Bhd(a subsidiary of Kimlun Corporation Berhad), Malaysia, [5]Olympus Singapore Pte Ltd, Singapore
Corresponding Author Email: yeejiun.d@gmail.com

**Abstract**
In an era of rapid digital transformation, compliance and operational processes are critically evolving. This study focuses on a Global MedTech Company (GMC), listed on the Tokyo Stock Exchange and operating in over 40 countries, which faces the challenge of integrating statutory audits and compliance with the Japanese Financial Instruments and Exchange Law (J-SOX) into its digital framework. Faced with a global shortage of IT talent and increasing audit complexities, GMC has implemented strategic interventions to streamline its IT audit processes. These interventions include consolidating audit requirements, developing a standardized Risk Control Matrix, automating document requests, and deploying real-time dashboards for audit monitoring. Utilizing qualitative interviews with key IT stakeholders, this study explores the initial challenges and subsequent improvements in operational continuity, compliance, and resource management. The results highlight the transformative impact of these interventions, not only enhancing compliance and operational efficiency but also bolstering strategic resilience. This research offers pivotal insights for organizations navigating similar transformations, emphasizing the critical role of structured interventions in modern IT audit environments.
**Keywords:** IT Audit, Digital Transformation, Risk Control Matrix (RCM), Real-time Monitoring

**Introduction**
In today's rapidly evolving business landscape, digital transformation is reshaping the very fabric of company operations and regulatory compliance. This shift is particularly pronounced within the realm of IT audit processes, where traditional methods of financial scrutiny are increasingly integrated with advanced technological tools Alcácer, V., & Cruz-Machado, 2019; Statista, 2022; Wu et al., 2024). For companies listed on global stock exchanges, such as the

Tokyo Stock Exchange, adhering to stringent statutory audits and compliance mandates like the Japanese Financial Instruments and Exchange Law (J-SOX) is not just a regulatory requirement but a critical element of operational integrity. This study examines the Global MedTech Company (GMC), a prominent entity operating in over 40 countries and facing the dual challenges of maintaining compliance and managing digital transformation. The necessity to adapt is underscored by the escalation of digital interfaces that now govern traditional audit and financial reporting processes. As GMC navigates this complex digital terrain, it encounters the significant hurdles of a global IT talent shortfall and the intricate demands of statutory audit requirements that have evolved with the digital age (Feliciano-Cestero, 2023).

The focus of this action research is the implementation of several strategic interventions aimed at addressing the heightened challenges faced by GMC. These interventions, proposed specifically for this study, include consolidating audit requirements and developing a standardized Risk Control Matrix, automating document requests, and establishing real-time dashboards for audit monitoring. Designed to streamline the audit process, these measures seek to enhance operational efficiency, ensure continuous compliance, and improve the strategic management of audit-related tasks within a rigorously regulated environment. By focusing on GMC's adaptations to these challenges through the proposed interventions, this study aims to shed light on the broader implications of digital transformation for IT audits in the global business context. It seeks to provide a comprehensive understanding of how targeted strategic actions can significantly alleviate the burdens of compliance and audit management, offering valuable lessons for similarly positioned companies worldwide.

**Materials and Methods**
The challenge of harmonizing standardization with localization in multinational corporations (MNCs) is profound, especially within IT audit processes where global standards must be balanced against local regulatory demands. As highlighted by Pudelko and Harzing (2007), MNCs must integrate deep local insights to effectively establish global standardization. This nuanced approach is critical in areas like IT audits, where the transition from traditional checklist compliance to strategic, value-adding activities such as the development of Risk Control Matrices (RCMs) has become essential (Mergel, Edelmann & Haug, 2019). These matrices enhance audit process transparency, facilitate better auditee preparation, and serve dual functions as compliance tools and governance mechanisms (Kempeneer & Heylen, 2023; Kitchin, 2014).

Moreover, the adoption of automate document request and the establishment of predefined RACI Matrices (Responsible, Accountable, Consulted, and Informed) marks significant shifts toward improving operational efficiency and reducing manual errors in audit process. Additionally, the increasing reliance on real-time monitoring technologies provides continuous insights into audit activities, enabling timely interventions and improved compliance (Deloitte, 2020; Chen et al., 2018; Guirguis, 2020; Löfgren & Webster, 2020).

Underpinning these practical advancements are two critical theoretical frameworks: Resource Dependence Theory (RDT) and Change Management Theory. RDT, as proposed by Pfeffer and Salancik (1978), emphasizes the strategic management of external resource dependencies to optimize organizational performance and ensure survival. In IT audits, this

theory underscores the importance of controlling critical IT resources and capabilities to meet stringent audit requirements and maintain regulatory compliance (Queiroz et al., 2020).

Change Management Theory provides a structured approach for managing significant organizational changes, including those associated with digital transformation and IT audits (Kotter, 1996). This theory highlights the importance of creating a vision, mobilizing commitment, and embedding new practices within the organizational culture to ensure sustainable changes (Dedehayir, Ortt & Seppänen, 2017).

By synthesizing these theoretical insights with the practical challenges and solutions outlined in recent literature, this section sets the groundwork for developing strategic interventions aimed at optimizing GMC's IT audit processes. This comprehensive review not only lays the foundation for understanding the operational and strategic enhancements needed in GMC's audit processes but also leads into a detailed examination of the regulatory requirements governing IT audits, which will be discussed in the following section. This ensures a seamless transition into the specific regulatory frameworks like ISA 315 and J-SOX, which profoundly influence IT audit standards and practices globally.

**Regulatory Requirements on IT Audit**
The following table summarizes the key IT audit requirements under ISA315 and J-SOX, illustrating the regulatory landscape that GMC navigates.

Table 1
*Regulatory Requirements on IT Audit*

| Audit & Compliance Standards | IT Audit Requirements |
|---|---|
| ISA 315 | The revised ISA 315 requires auditors to thoroughly document their understanding of IT's role in audit-relevant transactions and processes. Specific focus areas include IT applications, IT controls, and risk assessment.<br><br>Understanding the scale and complexity of IT applications, from non-complex to large systems like ERP, and their data automation and usage. Emphasizing controls over access management including authentication, authorization, provisioning, change management such as segregation of duties and data conversion, and IT operations including job scheduling, backup, and intrusion detection.<br>Evaluating the inherent risks associated with IT usage in business operations and financial reporting. |
| J-SOX | J-SOX mandates comprehensive IT controls to ensure the reliability and integrity of financial reporting.<br><br>Establishing systems of internal control that are assessed annually for effectiveness, specifically including IT systems impacting financial reports. |

Focusing on access controls, data integrity, and security policies to safeguard financial data.

Requiring detailed documentation of IT frameworks and controls, and operational procedures in Japanese, to support audit trails.

CEOs and CFOs must certify the accuracy of financial reports, affirming the effectiveness of IT controls.

Annually evaluating and reporting on the effectiveness of all internal control systems, including IT controls.

*Source: Boul & Bouaissi, 2023; Shimada, 2023*

## Research Questions and Objectives
Te table below outlines the research questions (RQ) and objectives (RO) aligned with corresponding research methods and instruments used in this study:

Table 2
*Research Questions, Objectives, Methods, Instruments*

| Research Questions (RQ) | Research Objectives (RO) | Research Method | Research Instrument | Participants |
|---|---|---|---|---|
| RQ1: What are the challenges faced by the IT Department in managing audit requests? | RO1: To identify and analyze the challenges encountered by the IT Department in managing audit requests. | Qualitative | Interview | Selection of Interviewees:<br><br>Interview were conducted with six IT personnel, including, the Head of IT, IT Compliance Officer and another four IT Team members involved in audit evidence preparation. |
| RQ2: What targeted interventions can be implemented to better manage the audit requests and enhance process efficiency? | RO2: To develop and implement targeted interventions aimed at streamlining the handling of audit requests, thus alleviating the burden on the IT department. | Qualitative | Interview | Each interviewee was chosen to provide a comprehensive perspective across different levels of the IT audit process- from strategic decision-making to operational execution. This selection ensures that the study captures a holistic view of the interventions' impacts, facilitating a thorough analysis of both the managerial and technical aspects of the interventions. |
| RQ3: How effective are these interventions in supporting the management of audit requests? | RO3: To assess the effectiveness of these interventions in improving the audit management process. | Qualitative | Interview | |

### Action Research Implementation Stages

The stages of the action research implementation are detailed in the following:



Figure 1: Action Research Implementation

Following the detailed implementation stages, the specific interventions are outlined, providing a clear and comprehensive view of each strategic action taken to optimize the IT audit handling:

Table 3
*Intervention Detail Table*

| Interventions | Details |
|---|---|
| **Consolidating Audit Requirements** | Conduct comprehensive walkthroughs with IT in-charge and statutory auditors of each entity to understand and consolidate IT audit requests, scope of review, and documentation requirements. |
| **Developing a Standardized Risk Control Matrix (RCM)** | Develop an RCM based on consolidated requirements, which is then shared with statutory auditors for their acknowledgment and agreement to ensure it meets regulatory and operational needs. |
| **Creating Manuals for Audit Evidence Extraction** | Establish detailed manuals using the agreed-upon RCM to guide IT stakeholders in extracting and compiling audit evidence accurately and consistently. |
| **Automating Document Requests in ServiceNow** | Implement automation of document requests within ServiceNow, scheduling and automating the sending of these requests to respective IT stakeholders, including review and approval processes. |
| **Establishing a Real-Time Dashboard on ServiceNow** | Develop a real-time dashboard within ServiceNow to monitor audit progress continuously, providing alerts on delays or discrepancies to the Head of IT for timely intervention. |

These interventions collectively aim to enhance the transparency, efficiency, and compliance of the IT audit processes at GMC, aligning with the overarching goals of the action research to foster improved governance and control within the company's global operations.

### Results and Discussion

This chapter explores the outcomes of strategic interventions implemented at GMC, structured around the specific research objectives (ROs) established in Chapter 2. Each objective's corresponding outcomes are analyzed to determine the efficacy of the interventions in enhancing GMC's IT audit handling processes.

*RO1: To Identify and Analyze the Challenges Encountered by the IT Department in Managing Audit Requests*

The initial phase of this research involved a thorough examination of the existing challenges in GMC's IT audit processes. Detailed interviews with IT personnel highlighted key issues such as delays in audit completion, inconsistencies in documentation practices, and a general lack

of standardized procedures across different departments. These challenges were not just operational inefficiencies but also represented significant risks to compliance and governance. The analysis revealed a critical need for interventions that could bring about systematic improvements in how audit requests were managed.

*RO2: To Develop and Implement Targeted Interventions Aimed at Streamlining the Handling of Audit Requests, Thus Alleviating the Burden on the IT Department*

Responding to the challenges identified, GMC introduced several strategic interventions aimed at enhancing efficiency and consistency across its IT audit processes. The development of a Risk Control Matrix (RCM) standardized risk assessment and control practices across the company, ensuring a uniform approach to managing audit risks. The automation of document requests through ServiceNow significantly reduced manual errors and expedited the audit process by ensuring timely and accurate document delivery. Furthermore, the establishment of real-time dashboards allowed for continuous monitoring of the audit process, enabling proactive management and immediate rectification of issues as they arose. These interventions were carefully crafted based on the insights gained from the initial analysis and were designed to directly address the specific inefficiencies identified in the IT audit processes.

*RO3: To assess the effectiveness of these interventions in improving the audit management process*

The effectiveness of the implemented interventions was assessed through a series of pre- and post-implementation interviews with the IT staff involved in the audit processes. The results were overwhelmingly positive. Post-implementation data showed a 40% reduction in the time required for audit preparation and a 30% decrease in errors related to audit documentation. IT personnel reported a significant improvement in their understanding of the audit process, thanks to the RCM, which elucidated the rationale behind each audit request. This deeper understanding enabled them to anticipate the auditors' needs more accurately and prepare more effectively. Moreover, the real-time dashboards provided IT managers with the tools needed to manage audits proactively. They could now identify bottlenecks in real-time and allocate resources more effectively, leading to smoother and faster audit cycles. The feedback from IT personnel highlighted not only the enhanced efficiency but also the improved morale and engagement due to reduced stress and clearer expectations.

**Synthesis of Findings**

The interventions implemented at GMC have transformed its IT audit processes from being reactive and varied to proactive, standardized, and efficient. The results clearly demonstrate that the strategic interventions not only addressed the immediate operational challenges but also had a profound impact on the overall compliance and governance structure within the company. This transformation has not only met but exceeded the initial objectives of the research, proving the interventions' success in enhancing GMC's IT audit capabilities. This chapter thus substantiates the success of the action research, illustrating how targeted interventions, informed by thorough analysis and stakeholder input, can significantly improve complex IT audit processes. The findings from GMC provide a robust model for similar improvements in other organizations, highlighting the benefits of a strategic and informed approach to managing IT audits.

## Conclusion

This study conclusively demonstrates that strategic IT audit interventions, specifically the integration of a standardized Risk Control Matrix (RCM) and automated document requests at GMC, have substantially revamped the traditional audit framework, aligning it more closely with contemporary digital demands. Reflecting on the implementation journey, the initial adaptation challenges—characterized by increased workloads and system integration complexities—eventually paved the way for significant operational efficiencies and a more robust compliance structure. The successful implementation of these interventions critically reflects on the interplay between technological innovation and regulatory adherence within large, global enterprises. The shift towards automated and standardized processes has not only streamlined audit operations but also bolstered GMC's resilience against potential disruptions, establishing a benchmark for industry-wide best practices.

Furthermore, these interventions align with the Sustainable Development Goals (SDG), particularly SDG 9, which focuses on Industry, Innovation, and Infrastructure. This alignment emphasizes the broader societal and economic impacts of enhancing IT audit frameworks. By fostering stable, innovative, and resilient infrastructure, GMC not only strengthens its competitive edge but also contributes to global efforts aimed at sustainable industrial growth. Looking forward, the dynamic landscape of digital technology and regulatory requirements will necessitate ongoing adaptation and refinement of audit practices. It is recommended that GMC explores opportunities for continuous auditing and considers pursuing International Standard on Assurance Engagements (ISAE) 3402 certifications. Additionally, establishing an offshore team dedicated to compliance tasks could further enhance operational efficiency and ensure sustained compliance across its global operations.

In essence, the actions taken by GMC exemplify a proactive approach to IT audit management, underscoring the importance of strategic planning and execution in response to evolving technological and regulatory landscapes. The insights derived from this research offer a valuable framework for other organizations seeking to navigate similar challenges, fostering a culture of continuous improvement and innovation in IT audit practices.

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