

HARMONY IN PROGRESS:

**INTEGRATING SCIENCE, TECHNOLOGY,
AND
SOCIAL INNOVATION
FOR SUSTAINABLE DEVELOPMENT GOALS**



**e-Book of Extended Abstract
Negeri Sembilan International (NSIEx) & Research Symposium
2025**

PSS003 - i-INTEGRATED AUDIT MANAGEMENT SYSTEM

Rashidah Mohd Said, Mohamadnor Basri Shafe, Wan Zaliha Wan Othman, Elango Periasamy, Rashida Awang, Hamidah Mat*, and Rokiah Mohd Nazir

Jabatan Pengurusan Inovasi Dan Kualiti, Institut Aminuddin Baki,
Kementerian Pendidikan, Kompleks Pendidikan Nilai, 71760 Bandar Enstek, Negeri Sembilan

*Corresponding author: hamidah@iab.moe.gov.my

ABSTRACT

This study evaluates the content validity and implementation potential of the IAB Integrated Audit Management System (IIAMS), a digital platform developed by the Aminuddin Baki Institute (IAB) to enhance internal audit management through the integration of Lean principles and ISO 9001:2015 standards. Using a quantitative approach, seven experts assessed IIAMS via the Content Validity Index (CVI) and SPSS analysis, with all items scoring above the 0.78 threshold, indicating high validity. Mean scores for usability, interface, and content suitability ranged from 4.2 to 4.6, reflecting strong user acceptance despite minor concerns over smartphone access. IIAMS improves audit transparency, efficiency, and accountability by enabling real-time document upload, retrieval, and monitoring. Beyond compliance, it supports continuous improvement and data-driven decision-making. The system demonstrates strong potential for replication across other Ministry of Education training institutes, positioning it as a benchmark for digital innovation in educational governance and national education management transformation.

Keywords – audit management, digital systems, Lean, ISO 9001, IIAMS, content validity

INTRODUCTION

ISO 9001 is a globally recognized quality management system standard with over one million certified organizations worldwide (Bravi et al., 2019; Başaran, 2021; Wilson & Campbell, 2020). However, its implementation in the public sector and educational institutions often faces challenges where Quality Management Systems (QMS) are applied bureaucratically, prioritizing documentation compliance over continuous improvement and operational effectiveness (Gebregergs, 2019; Brooks et al., 2021). This can lead to inefficiencies, resource wastage, and audits with minimal organizational impact. Lean Management principles focusing on waste reduction, process efficiency, and value creation offer potential to strengthen QMS (Bacoup et al., 2018), yet integration between Lean and ISO frameworks remains limited in training institutions.

In Malaysia, the Institut Aminuddin Baki (IAB), as the Ministry of Education's primary training center for educational leadership, has faced audit challenges including fragmented document management, inconsistent processes, and weak links between audit findings and institutional improvements. IIAMS was developed to address these issues, providing a centralized digital platform accessible via <http://iiams.iab.edu.my> that

embeds LPMS principles into ISO-based audits, reduces duplication, standardizes workflows, and generates data-driven insights to drive continuous improvement.

OBJECTIVE

To evaluate the effectiveness of IIAMS in integrating Lean Quality Management System (LPMS) principles with ISO-based audit processes to improve efficiency, transparency, and continuous improvement in internal audit management.

DESCRIPTION OF THE PROJECT

IIAMS was designed to facilitate the systematic collection, storage, and management of internal audit documents in accordance with ISO 9001:2015 standards. It provides auditors with a secure, centralized platform to upload audit reports, observations, corrective actions, and improvement proposals. The system also allows quick access to historical audit data, enabling better tracking of progress and corrective actions while ensuring compliance with ISO requirements.

By digitizing the audit process, IIAMS eliminates reliance on physical documents and face-to-face meetings, enabling flexible and collaborative work regardless of location. It also supports long-term quality improvements by allowing users to reference past audit findings, plan improvement measures, and perform basic audit data analysis to inform strategic decisions.

NOVELTY

IIAMS introduces a unique integration of ISO 9001 compliance requirements with Lean Quality Management System (LPMS) principles in a fully digital platform tailored for educational training institutions. Unlike conventional audits that rely on manual documentation and fragmented workflows, IIAMS centralizes all processes in a real-time, cloud-based environment, eliminating duplication, enhancing transparency, and ensuring consistency across audit stages.

Its dual role as both a compliance tool and a strategic improvement mechanism further distinguishes IIAMS. Beyond fulfilling ISO audit requirements, it incorporates data analytics to identify recurring issues, track corrective actions, and generate actionable insights. With smartphone accessibility, remote collaboration, and continuous reference to past audits, IIAMS reduces time, cost, and resource consumption while fostering a culture of continuous improvement.

CONCLUSION

The development of IIAMS demonstrates that a digital, integrated approach can transform internal audit management in educational training institutions, enhancing efficiency, transparency, and accountability. Expert evaluations confirm high usability and content validity, indicating readiness for broader adoption. Future development will explore commercialization, replication across other Ministry of Education training institutes, and advanced features such as AI-driven analysis, automated reporting, and integration with existing training management systems. With its proven potential, IIAMS stands as a high-

impact innovation aligned with Malaysia's MADANI aspirations and the transformation of national education governance.

REFERENCES

- Bacoup, P., Michel, C., Habchi, G., & Pralus, M. (2018). From a quality management system (QMS) to a lean quality management system (LQMS). *The TQM Journal*, 30(1), 20-42.
- Başaran, B. (2021). The past, present and future ISO 9001 quality management system standard. *Business & Management Studies: An International Journal*, 9(1), 227-247.
- Bravi, L., Murmura, F., & Santos, G. (2019). The ISO 9001: 2015 quality management system standard: Companies' drivers, benefits and barriers to its implementation. *Quality Innovation Prosperity*, 23(2), 64-82.
- Gebregergs, A. (2019). *Challenges Of Implimenting Quality Management System In Bgi-Ethiopia* (Doctoral dissertation, st. mary's University).
- Wilson, J. P., & Campbell, L. (2020). ISO 9001: 2015: the evolution and convergence of quality management and knowledge management for competitive advantage. *Total Quality Management & Business Excellence*, 31(7-8), 761-776.