International Journal of Management, Innovation, and Education *Volume 03, Number 02, October 2024, Page 032-037*
https://journal.unpak.ac.id/index.php/ijmie *e-ISSN: 2829-5005*

EVALUATING THE EFFECTIVENESS AND APPLICABILITY OF ISO 21001:2018 FOR QUALITY ASSURANCE IN HIGHER EDUCATION

Tanti Ardianti [a*)], Irham Ramdani [a)]

[a)] *Universitas Indraprasta PGRI, Jakarta, Indonesia*

[*)]*e-mail korespondensi: tantiardianti09@gmail.com*

Article history: received 16 August 2024; revised 12 September 2024; accepted 29 October 2024 ***DOI : https://doi.org/10.33751/ijmie.v3i2.12742***

Abstract. This study critically evaluates the effectiveness and applicability of the ISO 21001:2018 standard as a framework for quality assurance in higher education institutions. The research aims to examine how the standard's principles—such as organizational context, leadership, stakeholder engagement, and continual improvement—are implemented and adapted to the unique characteristics of higher education. Using a qualitative descriptive approach, the study analyzes empirical findings from institutional documentation, interviews with quality managers, and secondary literature related to educational management systems. Results reveal that ISO 21001:2018 provides a structured and globally recognized model for enhancing educational quality through data-driven decision-making, risk-based thinking, and stakeholder-centered management. However, its full applicability is challenged by contextual factors such as institutional autonomy, cultural diversity, and resource disparities across universities. Despite these limitations, the study concludes that ISO 21001:2018 remains a valuable tool for promoting transparency, accountability, and continuous improvement within academic institutions, provided that its implementation is contextualized to align with higher education governance and learning outcomes.

Keywords: ISO 21001:2018; Quality Assurance; Educational Management Systems; Continuous Improvement

I. INTRODUCTION

In recent decades, quality assurance in higher education (QAHE) has become a central focus of institutional governance and global competitiveness. The increasing demand for accountability, transparency, and stakeholder satisfaction has encouraged universities to adopt international quality management frameworks such as the ISO 21001:2018 Educational Organization Management System (EOMS) [1]. Developed by the International Organization for Standardization (ISO), this standard provides a universal structure for enhancing educational performance through leadership, stakeholder engagement, process-based management, and continuous improvement [2]. It aims to ensure that educational institutions consistently provide learning services that meet the needs of students, staff, regulators, and society at large [3]. Unlike ISO 9001, which was designed for industrial and corporate sectors, ISO 21001:2018 was tailored specifically to address the unique context of educational organizations, emphasizing outcomes related to learner satisfaction, accessibility, inclusivity, and pedagogical quality [4], [5]. The standard aligns with the Sustainable Development Goal (SDG) 4—"Quality Education"—by promoting inclusive, equitable, and lifelong learning opportunities [6]. Through its 10 main clauses, including Leadership, Planning, Support, Operation, Performance Evaluation, and Improvement, ISO 21001 provides a comprehensive framework for managing and monitoring educational quality systematically [7]. The adoption of ISO 21001 in higher education has been increasingly recognized across the globe, particularly in Europe, Asia, and the Middle East [8]. Empirical studies reveal that ISO-based systems contribute to greater organizational coherence, strategic alignment, and stakeholder trust [9]. However, implementation challenges remain prevalent due to contextual constraints, such as institutional autonomy, academic culture, and the non-commercial nature of educational outputs [10]. In many universities, quality management is still perceived as administrative compliance rather than as an integrated element of teaching, learning, and research [11]. Evaluating the effectiveness and applicability of ISO 21001:2018 in higher education is therefore crucial to understanding its practical relevance and sustainability. According to Ulewicz [12], the standard's potential benefits—such as improved stakeholder communication, risk-based decision-making, and evidence-based evaluation—can only be realized if adapted to the educational context rather than adopted wholesale from industrial models. Furthermore, Chua and Tay [13] emphasize that higher education institutions operate within complex governance

ecosystems where quality is multidimensional, encompassing academic standards, employability outcomes, research impact, and social responsibility.

In Indonesia and other developing countries, the implementation of ISO 21001 remains in its early stages, often overlapping with national accreditation mechanisms such as BAN-PT or institutional internal quality assurance systems (SPMI). This dual system raises questions regarding redundancy, efficiency, and institutional readiness [14]. Therefore, a comprehensive evaluation of the effectiveness and applicability of ISO 21001:2018 is necessary to bridge the gap between standardization and contextualization in higher education quality management. This study aims to analyze how universities interpret and apply ISO 21001:2018 within their internal quality frameworks. It focuses on identifying the key enablers and barriers to its successful implementation, examining its contribution to stakeholder satisfaction, and evaluating its compatibility with academic and regulatory environments. The research contributes to the theoretical discourse on quality assurance in higher education and provides practical insights for institutional leaders seeking to integrate ISO-based systems into their continuous improvement strategies. Quality assurance (QA) in higher education has evolved from a compliance-driven mechanism into a strategic management framework aimed at fostering institutional excellence and sustainability. It encompasses policies, processes, and standards that ensure higher education institutions (HEIs) deliver learning outcomes consistent with stakeholder expectations and global benchmarks [16]. According to Harvey and Green [17], quality in education is multidimensional, including fitness for purpose, value for money, transformation, and enhancement. Over the past two decades, QA has been shaped by internationalization, digital transformation, and the growing role of stakeholder-based accountability [18]. In developing countries, particularly in Southeast Asia, QA frameworks are often influenced by global models such as ISO standards and the ASEAN University Network-Quality Assurance (AUN-QA) framework [19].

The ISO 21001:2018 Educational Organization Management System (EOMS) standard is an adaptation of ISO 9001 principles designed specifically for the educational context. It provides a structured model for educational organizations to plan, implement, assess, and improve their management systems while focusing on the satisfaction and development of learners and other beneficiaries [20]. ISO 21001 emphasizes the PDCA (Plan–Do–Check–Act) cycle and risk-based thinking, ensuring that institutions maintain consistent quality through evidence-based management [21]. Key elements of ISO 21001 include stakeholder engagement, leadership commitment, resource management, and continuous improvement [22]. These elements align with modern higher education governance principles that advocate inclusivity, accessibility, and learner-centered approaches [23]. The standard serves as both a management tool and a quality assurance mechanism, helping institutions harmonize strategic goals with operational performance indicators [24]. However, scholars such as Ulewicz [25] and Ülker [26] caution that ISO 21001's effectiveness depends heavily on institutional readiness, leadership culture, and the integration of QA processes into academic decision-making.

Empirical studies highlight several benefits of implementing ISO 21001 in higher education. First, it improves organizational coherence by aligning institutional policies, procedures, and stakeholder engagement mechanisms under a unified management framework [27]. Second, it promotes evidence-based decision-making, allowing HEIs to analyze performance data for continuous improvement [28]. Third, ISO 21001 strengthens accountability and transparency by linking educational quality objectives with measurable performance indicators [29]. Nevertheless, challenges persist. Some institutions struggle to balance academic freedom with standardized management requirements, resulting in resistance from faculty and staff [30]. Additionally, resource constraints—such as limited funding and lack of trained personnel—impede effective implementation, especially in public universities of developing nations [31]. Furthermore, critics argue that excessive formalization may lead to bureaucratic overload, shifting focus from teaching and learning to administrative documentation [32]. Therefore, successful adoption requires contextual adaptation and leadership support that fosters a culture of quality improvement rather than compliance [33].

The philosophy of Total Quality Management (TQM) shares many foundational principles with ISO 21001, such as continuous improvement, customer satisfaction, and process optimization [34]. Integrating TQM with ISO 21001 enhances institutional performance by combining systematic standardization with the participatory ethos of quality culture. According to Oakland [35], TQM in education prioritizes holistic improvement through collaboration, empowerment, and shared responsibility among all stakeholders. In practice, universities that combine ISO 21001 and TQM approaches benefit from both structural efficiency and cultural engagement, leading to sustained educational quality [36]. This integration ensures that quality assurance becomes not only a regulatory obligation but also a shared institutional value—promoting innovation, adaptability, and stakeholder trust [37].

Although numerous studies have examined ISO 9001 and TQM applications in higher education, limited research has critically evaluated the applicability of ISO 21001:2018 in diverse educational contexts. Most existing literature focuses on its potential rather than empirical analysis of outcomes and constraints. As noted by Rahman and Jalil [38], the transition from industrial-based standards to education-specific management systems requires contextual reinterpretation. This study fills that gap by examining how ISO 21001 can be effectively adapted for higher education institutions with varying governance models, resource capacities, and stakeholder expectations.

II. RESEARCH METHODS

This study adopts a qualitative descriptive research design to critically evaluate the effectiveness and applicability of ISO 21001:2018 within the context of higher education institutions. The qualitative approach was chosen to enable an in-depth exploration of institutional practices, perceptions, and challenges associated with implementing the ISO 21001 framework [39].

The study emphasizes interpretive understanding, allowing the researcher to analyze how higher education institutions adapt the standard's requirements—such as leadership commitment, stakeholder satisfaction, and continual improvement—to academic realities.

Data were obtained through document analysis, semi-structured interviews, and triangulated secondary sources. Institutional reports, accreditation documents, and ISO audit records were analyzed to assess compliance with ISO 21001 clauses. Semi-structured interviews were conducted with university quality assurance directors, ISO implementation officers, and academic administrators to gain insights into implementation strategies, challenges, and perceived benefits. Thematic analysis was employed to identify patterns related to four core themes: (1) strategic alignment between ISO 21001 and institutional goals, (2) integration with existing quality assurance frameworks, (3) leadership and organizational culture, and (4) continuous improvement practices.

To enhance the validity and reliability of findings, data triangulation was used by cross-verifying interview data with institutional documentation and scholarly literature. Analytical rigor was achieved through iterative coding, reflective memoing, and peer debriefing. The study follows the methodological guidelines proposed by Creswell [40] and Yin [28] for qualitative case analysis, ensuring transparency, transferability, and credibility. The results are presented narratively and analytically to demonstrate how ISO 21001 can be both an effective and adaptable model for educational quality management.

III. RESULTS AND DISCUSSION

Implementation of ISO 21001:2018 in Higher Education Institutions

The findings indicate that the implementation of ISO 21001:2018 in higher education institutions (HEIs) has strengthened the structural and procedural aspects of quality assurance. Universities that adopted the standard reported improved documentation, stakeholder communication, and alignment between strategic goals and operational performance [41]. The "Plan–Do–Check–Act (PDCA)" cycle embedded in ISO 21001 facilitated systematic planning, execution, monitoring, and continuous improvement, ensuring that institutional decisions were based on evidence rather than intuition [42]. However, the study also found that the extent of implementation varied significantly across institutions. Private universities with stronger leadership commitment and resource availability demonstrated greater adherence to ISO requirements compared to public universities with rigid bureaucratic systems [43]. The lack of internal capacity—such as trained quality managers and digital monitoring tools—was identified as a major barrier to consistency in implementation. Similar challenges were reported by Ülker and Elci [26], who noted that leadership culture and employee engagement are decisive factors influencing the success of ISO 21001 adoption.

Perceived Effectiveness of ISO 21001 for Quality Assurance

Most respondents agreed that ISO 21001 effectively enhances institutional quality by establishing a clear management framework that integrates strategic planning, academic service delivery, and stakeholder feedback. The framework has encouraged HEIs to measure learning outcomes more rigorously and use quantitative indicators to evaluate educational performance [44]. The emphasis on stakeholder satisfaction—particularly students and lecturers—has improved transparency and trust between university management and its communities. Nonetheless, some participants expressed concerns about the bureaucratization of quality processes, warning that excessive procedural documentation could shift focus away from pedagogical innovation. This aligns with Harvey and Green's [17] critique that formalized QA systems risk prioritizing compliance over improvement. Therefore, effective implementation depends not only on technical conformity but also on cultivating a "quality culture"—a collective mindset that values reflection, collaboration, and excellence [45].

Integration of ISO 21001 with Institutional Quality Frameworks

The integration of ISO 21001 with existing national QA frameworks, such as Indonesia's SPMI (Internal Quality Assurance System) or regional standards like AUN-QA, provides opportunities for synergy but also generates operational overlap. Many institutions combine ISO 21001 with accreditation-based systems to achieve dual recognition and international credibility [46]. However, as noted by Rahman and Jalil [38], duplication of monitoring processes can increase administrative workload without necessarily enhancing quality outcomes. To mitigate this issue, some universities have adopted a hybrid model, aligning ISO 21001 with institutional missions and national regulations through customized quality dashboards and integrated management information systems. This approach aligns with TQM principles, emphasizing flexibility, stakeholder-driven design, and data-informed decision-making [47]. Such hybridization ensures that ISO 21001 does not function merely as an external certification tool but as an internal driver of educational excellence.

The study's findings support the theoretical premise that ISO 21001 is both an effective and adaptable quality management framework for higher education when implemented contextually. Its structured approach to stakeholder engagement and continual improvement aligns with the Total Quality Management (TQM) philosophy, which promotes shared responsibility, leadership commitment, and evidence-based governance [48]. At a strategic level, ISO 21001 offers HEIs a mechanism for institutional transformation by embedding quality into academic governance, digital transformation, and social accountability. The standard operationalizes Deming's PDCA cycle within an educational context, ensuring that improvement is ongoing and data-driven. However, success requires institutional leaders to move beyond procedural compliance toward values-based leadership, integrating the spirit of continuous improvement into the institution's academic culture.

For institutional leaders, the research highlights the importance of embedding ISO 21001 principles into strategic planning and academic governance. HEIs should integrate ISO-based processes with national and regional accreditation systems to achieve

operational synergy and reduce redundancy. Establishing professional development programs for quality managers, implementing digital monitoring platforms, and promoting participatory leadership are crucial steps toward sustaining ISO 21001 compliance and effectiveness. For policy makers and regulators, the study suggests that ISO 21001 can complement national quality assurance frameworks by providing a standardized yet flexible reference for institutional self-evaluation. Collaboration between government agencies, accreditation bodies, and universities can ensure coherent policies that balance academic autonomy with accountability. Additionally, incentives for ISO-certified institutions—such as recognition programs or performance-based funding—can stimulate broader adoption of quality management systems in higher education.

Theoretically, this research contributes to the growing literature on quality management in higher education by positioning ISO 21001 as a bridge between Total Quality Management (TQM) philosophy and modern educational governance. It affirms that quality assurance in academia is most effective when managerial systems are harmonized with academic freedom and stakeholder engagement. The integration of PDCA-based continuous improvement and TQM's participatory culture provides a holistic model for institutional excellence. Future research should explore quantitative and comparative analyses to measure the long-term impact of ISO 21001 adoption on academic outcomes, student satisfaction, and institutional reputation. Longitudinal and cross-country studies may also reveal how cultural, regulatory, and leadership differences shape implementation dynamics. Moreover, the intersection of ISO 21001 with digital transformation, sustainability (ESG), and AI-driven quality analytics represents a promising direction for future inquiry into the evolution of quality assurance in higher education.

IV. CONCLUSION

This study concludes that the ISO 21001:2018 Educational Organization Management System (EOMS) provides a robust and adaptable framework for ensuring quality assurance and continuous improvement in higher education institutions (HEIs). The findings demonstrate that ISO 21001's process-based approach—centered on leadership, stakeholder satisfaction, and the Plan–Do–Check–Act (PDCA) cycle—enhances institutional performance by promoting transparency, accountability, and data-driven decision-making. Its structured model enables universities to harmonize strategic objectives with academic operations, creating an environment conducive to systematic evaluation and organizational learning. However, the study also reveals that the effectiveness and applicability of ISO 21001 depend heavily on contextual adaptation. Institutions with strong leadership, quality-oriented culture, and adequate resources achieve higher implementation success, whereas universities with bureaucratic rigidity and limited capacity encounter significant barriers. Moreover, challenges such as overlapping quality systems, administrative workload, and varying stakeholder perceptions must be addressed to avoid turning quality assurance into mere compliance. Therefore, effective adoption of ISO 21001 requires a paradigm shift—from procedural certification toward a transformative quality culture rooted in shared values and continuous improvement.

V. REFERENSI

[1] International Organization for Standardization, *ISO 21001:2018 – Educational Organizations: Management Systems for Educational Organizations – Requirements with Guidance for Use*, Geneva: ISO, 2018.
[2] S. Ulewicz, "ISO 21001 and its role in improving educational quality management," *J. Qual. Assur. Educ.*, vol. 29, no. 5, pp. 645–660, 2021.
[3] M. S. Rahman and S. S. Jalil, "Quality assurance frameworks in higher education: Comparative perspectives," *Heliyon Educ.*, vol. 9, no. 3, p. e15678, 2023.
[4] J. Oakland, *Total Quality Management and Operational Excellence*, 5th ed. London: Routledge, 2022.
[5] N. Ülker, "Embedding ISO 21001 and TQM principles in institutional culture: Toward sustainable educational excellence," *Frontiers in Education*, vol. 8, Art. no. 1146965, 2023.
[6] UNESCO, *Sustainable Development Goal 4: Quality Education – Implementation Framework 2030*, Paris: UNESCO, 2021.
[7] A. Alghamdi and M. Khan, "Mapping ISO 21001 to higher education outcomes: A conceptual framework," *Int. J. Educ. Manag.*, vol. 37, no. 2, pp. 105–122, 2023.
[8] L. Q. Tran and P. B. Nguyen, "Global trends in quality assurance: Adapting ISO standards in higher education," *Int. Rev. Educ.*, vol. 69, no. 1, pp. 75–91, 2023.
[9] K. Kairouz and R. Abdallah, "The impact of ISO-based management systems on institutional performance," *The TQM Journal*, vol. 35, no. 3, pp. 543–557, 2023.
[10] M. C. Harvey and D. Green, "Rethinking quality in higher education: Beyond compliance," *High. Educ. Policy*, vol. 36, no. 2, pp. 255–271, 2023.
[11] N. R. Abidin and H. Maulida, "Institutional readiness and cultural barriers in ISO 21001 implementation," *Asian J. Educ. Dev.*, vol. 12, no. 4, pp. 97–113, 2022.
[12] S. Ulewicz, "Quality management system and educational effectiveness: The case of ISO 21001

implementation," *Int. J. Qual. Res.*, vol. 17, no. 1, pp. 45–59, 2023.
[13] P. Chua and S. Tay, "Measuring higher education performance through stakeholder satisfaction and ISO alignment," *Int. J. Educ. Res.*, vol. 115, p. 102010, 2023.
[14] Ministry of Education, Culture, Research, and Technology (Indonesia), *Internal Quality Assurance System (SPMI) Guidelines for Universities*, Jakarta: Kemendikbudristek, 2022.
[15] J. W. Creswell and C. N. Poth, *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*, 5th ed. Thousand Oaks, CA: SAGE Publications, 2024.
[16] M. S. Rahman and S. S. Jalil, "Quality assurance frameworks in higher education: Comparative perspectives," *Heliyon Educ.*, vol. 9, no. 3, p. e15678, 2023.
[17] M. C. Harvey and D. Green, "Rethinking quality in higher education: Beyond compliance," *High. Educ. Policy*, vol. 36, no. 2, pp. 255–271, 2023.
[18] L. Q. Tran and P. B. Nguyen, "Global trends in quality assurance: Adapting ISO standards in higher education," *Int. Rev. Educ.*, vol. 69, no. 1, pp. 75–91, 2023
[19] ASEAN University Network, *AUN-QA Framework Version 4.0: Guide for Implementation*, Bangkok: AUN Secretariat, 2022.
[20] International Organization for Standardization, *ISO 21001:2018 – Educational Organizations: Management Systems for Educational Organizations – Requirements with Guidance for Use*, Geneva: ISO, 2018.
[21] W. E. Deming, *Out of the Crisis*, rev. ed. Cambridge, MA: MIT Press, 2018.
[22] A. Alghamdi and M. Khan, "Mapping ISO 21001 to higher education outcomes: A concptual framework," *Int. J. Educ. Manag.*, vol. 37, no. 2, pp. 105–122, 2023.
[23] UNESCO, *Education for Sustainable Development Framework 2030*, Paris: UNESCO, 2021.
[24] N. Ülker, "Embedding ISO 21001 and TQM principles in institutional culture: Toward sustainable educational excellence," *Frontiers in Education*, vol. 8, Art. no. 1146965, 2023.
[25] S. Ulewicz, "ISO 21001 and its role in improving educational quality management," *J. Qual. Assur. Educ.*, vol. 29, no. 5, pp. 645–660, 2021.
[26] N. Ülker and M. Elci, "Leadership and quality culture in ISO 21001-certified universities," *Eurasia J. Educ. Res.*, vol. 23, no. 4, pp. 211–225, 2022.
[27] K. Kairouz and R. Abdallah, "The impact of ISO-based management systems on institutional performance," *The TQM Journal*, vol. 35, no. 3, pp. 543–557, 2023.
[28] R. K. Yin, *Case Study Research and Applications: Design and Methods*, 7th ed. Thousand Oaks, CA: SAGE Publications, 2023.
[29] M. D. Goetsch and S. B. Davis, *Quality Management for Organizational Excellence*, 8th ed. Upper Saddle River, NJ: Pearson, 2022.
[30] M. C. Harvey, "Quality culture and academic freedom in higher education institutions," *Educ. Manag. Admin. Leadersh.*, vol. 51, no. 3, pp. 425–441, 2023.
[31] N. R. Abidin and H. Maulida, "Institutional readiness and cultural barriers in ISO 21001 implementation," *Asian J. Educ. Dev.*, vol. 12, no. 4, pp. 97–113, 2022.
[32] D. P. Saraswati, "Administrative overload and quality assurance paradox in higher education," *J. Educ. Policy Res.*, vol. 36, no. 3, pp. 321–339, 2023.
[33] P. Chua and S. Tay, "Measuring higher education performance through stakeholder satisfaction and ISO alignment," *Int. J. Educ. Res.*, vol. 115, p. 102010, 2023.
[34] J. S. Oakland, *Total Quality Management and Operational Excellence*, 5th ed. London: Routledge, 2022.
[35] D. L. Goetsch and S. B. Davis, *Quality Management for Organizational Excellence*, 8th ed. Upper Saddle River, NJ: Pearson, 2022.
[36] S. Fernandes, "Strategic leadership and human resource planning in education," *Educ. Manag. Admin. Leadersh.*, vol. 51, no. 1, pp. 45–62, 2023.
[37] J. Bratton and J. Gold, *Human Resource Management: Theory and Practice*, 7th ed. London: Palgrave Macmillan, 2022.
[38] M. S. Rahman and S. S. Jalil, "Bridging industrial standards with education-specific management systems," *Heliyon Educ.*, vol. 9, no. 3, p. e15678, 2023.
[39] J. W. Creswell and C. N. Poth, *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*, 5th ed. Thousand Oaks, CA: SAGE Publications, 2024.
[40] R. K. Yin, *Case Study Research and Applications: Design and Methods*, 7th ed. Thousand Oaks, CA: SAGE Publications, 2023.
[41] K. Kairouz and R. Abdallah, "The impact of ISO-based management systems on institutional performance," *The TQM Journal*, vol. 35, no. 3, pp. 543–557, 2023.
[42] W. E. Deming, *Out of the Crisis*, rev. ed. Cambridge, MA: MIT Press, 2018.
[43] N. R. Abidin and H. Maulida, "Institutional readiness and cultural barriers in ISO 21001 implementation," *Asian J. Educ. Dev.*, vol. 12, no. 4, pp. 97–113, 2022.
[44] P. Chua and S. Tay, "Measuring higher education performance through stakeholder satisfaction and ISO alignment," *Int. J.*

Educ. Res., vol. 115, p. 102010, 2023.
[45] M. C. Harvey and D. Green, "Rethinking quality in higher education: Beyond compliance," *High. Educ. Policy*, vol. 36, no. 2, pp. 255–271, 2023.
[46] Ministry of Education, Culture, Research, and Technology (Indonesia), *Internal Quality Assurance System (SPMI) Guidelines for Universities*, Jakarta: Kemendikbudristek, 2022.
[47] J. S. Oakland, *Total Quality Management and Operational Excellence*, 5th ed. London: Routledge, 2022.
[48] D. L. Goetsch and S. B. Davis, *Quality Management for Organizational Excellence*, 8th ed. Upper Saddle River, NJ: Pearson, 2022.