

# From Compliance to Improvement: Assessing ISO 9001:2015 and ISO 21001:2018 Integration at a State Islamic University

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**Abstract.** This study examines the implementation of ISO 9001:2015 (general quality management) and ISO 21001:2018 (educational organization management) at a State Islamic University in Indonesia to evaluate how these standards support institutional objectives, stakeholder engagement, and continuous improvement. By adopting a mixed-methods comparative case-study design, data were collected through document analysis, interviews, and observations at both faculty and unit levels. Results indicate a robust documentation framework and strong leadership commitment—evidenced by comprehensive issue analyses, risk assessments, and management review cycles—but also reveal a "paper QMS" phenomenon, where audit findings seldom translate into actionable improvements. Based on these insights, we propose strengthening the audit-to-action linkage via formal corrective-action registers, fostering bidirectional dialogue through quality forums, and aligning ISO 21001 requirements with national accreditation benchmarks to maximize dual-certification benefits. These measures are intended to help Indonesian higher education institutions transition from mere compliance to sustained, evidence-based quality excellence.

**Keywords:** quality management, higher education, continuous improvement.

## 1 Introduction

For many years, the universities in Indonesia have adopted ISO 9001:2015 (general quality management) and ISO 21001:2018 (educational organization management) to strengthen their institutional quality assurance systems. These ISO frameworks require documented policies, risk assessments, stakeholder-needs analyses, standard operating procedures, and ongoing monitoring[1], [2]—elements that aim to embed a Plan-Do-Check-Act cycle into every administrative and academic process. Although many Indonesian HEIs now hold ISO certification, evidence remains limited on how these standards translate into meaningful quality improvements in teaching, learning, and organizational performance.

Global studies illustrate that ISO adoption in higher education often stalls at documentation—producing a "paper QMS" without profoundly altering institutional culture or practices[3], [4]. In Indonesia, research has described the alignment of ISO 21001 with national accreditation criteria (BAN-PT)[5]. Nevertheless, there is scant empirical analysis of how ISO-driven

processes impact stakeholder perceptions, resource allocation, and continual improvement cycles at faculty and unit levels. This gap is critical: universities risk compliance without understanding on-the-ground implementation dynamics without performance gains.

ISO 9001:2015's points mandate that institutions analyze internal/external issues, identify stakeholder needs, and demonstrate leadership commitment through communication and resourcing[6]. Preliminary interview data show robust documentation—issue registers, KPIs, and socialized policies—but also reveal uncertainty among faculty about the strategic use of these documents. That suggests a disconnect between top-down policy formulation and bottom-up engagement, a phenomenon documented elsewhere but not yet studied in Indonesian Islamic universities.

Performance evaluation and continual improvement are central to ISO's effectiveness[7], [8], requiring internal audits, corrective-action tracking, and management reviews that close the audit-to-improvement loop. While Stage Two external audits by MSC Global Indonesia confirm procedural compliance, interviewees report that audit findings often end with "report generation" rather than actionable change plans. The lack of documented follow-through on corrective actions points to a critical research gap: How effectively do ISO audit mechanisms drive fundamental improvements in academic and administrative outcomes?

Moreover, ISO 21001:2018 introduces an educational-specific lens—focusing on learner needs, educational processes, and stakeholder satisfaction[9]—yet its interplay with ISO 9001 and national accreditation standards remains underexplored. Understanding this interplay is essential for universities aiming to leverage dual certification as a strategic asset rather than a bureaucratic burden. Comparative case studies across private and public Islamic universities can illuminate whether ISO 21001 enhances educational outcomes beyond what ISO 9001 alone achieves.

Therefore, this study employs a mixed-methods comparative case-study design to investigate (a) how ISO-based quality management strategies are operationalized at faculty and unit levels, (b) the perceptions of academic and administrative stakeholders regarding documentation, audits and improvement cycles, and (c) the extent to which ISO 9001:2015 and ISO 21001:2018 contribute to measurable enhancements in institutional performance and stakeholder satisfaction. By addressing these gaps, the research will offer evidence-based recommendations for Indonesian HEIs seeking to move from ISO compliance to ISO-driven excellence.

## **2 Method**

This research uses a qualitative approach with a descriptive research type. As Moleong states, descriptive research is a report that contains data quotes to provide an overview of the report's presentation [10]. Meanwhile, qualitative research intends to understand phenomena experienced by research subjects, such as behavior, perceptions, motivations, and actions, utilizing descriptions in the form of words and language in a context using various scientific methods[11].

In this study, data can be obtained from two types of sources: primary and secondary. The data collection technique uses triangulation, namely, interviews, observation, and documentation. Technical triangulation and source triangulation are used to validate the data. The research

location is an Islamic university in Indonesia that practices the implementation of ISO-based management standards.

Data analysis uses descriptive principles, while the stages in data analysis consist of data collection, data presentation, conclusion drawing, and verification. The following is an explanation of these stages: (1) Data collection: Is a data search process carried out by conducting observations, interviews, and verification and validation of documentation related to universities that are and have implemented ISO, which are used as research objects; (2) Data presentation: namely the activity of compiling data that has been sorted in the form of a systematically arranged narrative under the subject matter. Data presentation is presented in pictures and tables, and the data analysis in the pictures and tables is presented as narratives. It is intended so that readers in this study can understand the contents of the research more clearly; (3) Drawing conclusions and verification.

### 3 Result

Based on data collected through interviews, the university has only been implementing ISO standards since 2022. We also conducted a search for evidence of clause documents. Clause documents contain important points implemented by the university to maintain quality following standards. The following are the clauses implemented in the university.

#### 3.1 Clauses at the Faculty Management Level

**Table 1.** Key information findings based on ISO standard clauses at the faculty management level

<b>Clauses</b>	<b>Description</b>
Clause 4.1	Approved internal and external issue analysis: in this case, the Faculty/Study Program has internal and external issue analysis documents
Clause 4.2	The faculty/study program has evidence of the measurement of stakeholder needs and expectations (students, users, lecturers, educational staff); has Key Performance Indicators and Additional Performance Indicators; has an organizational structure and job descriptions; has curriculum development guidelines; provides facilities for people with disabilities; has policy documents for the appointment of lecturers, thesis/dissertation supervisors, and thesis/dissertation examiners; conducts meetings/coordination for team teaching; and has a Semester Course Plan developed by faculty members based on Indonesia's independent learning policy.
Clause 4.1.1	Input to output documents of the education delivery process are available
Clause 5.1.1	Some documents identify opportunities and risks in achieving the Vision and encourage the academic community's active role in dissolving and supporting the education management process and continuous improvement efforts.
Clause 5.1.2	Evidence is available on measuring stakeholder satisfaction (students, users, lecturers, staff)
Clause 5.1.3	There are infrastructure facilities that students with special needs can access.

<b>Clauses</b>	<b>Description</b>
Clause 5.2.1	Commitment to the organization's social responsibility document is available.
Clause 5.2.2	The policy has been socialized to the relevant academic community and archived neatly and structured to facilitate identification.
Clause 5.3	The faculty provides documents that ensure that the policies are understood and implemented by the relevant units.
Clause 6.1.1	The faculty/study program has a planning policy that includes risk and opportunity management analysis.
Clause 6.1.2	Procedure documents are available to address risks
Clause 6.2.1	The faculty/study program has a measurable and always updated policy document on the Educational Organizations Management System (EOMS).
Clause 6.2.2	The faculty/study program has a document on achieving goals, how to achieve them, and what resources are needed.
Clause 6.3	Availability of policies on changing education management strategies for the better
Clause 7.1	The faculty/study program has a policy on the availability of adequate facilities and infrastructure to continuously improve education management.
Clause 7.1.1.2	The faculty/study program already has a document of related stakeholder satisfaction survey activities.
Clause 7.1.2	The faculty/study program has a policy on human resources for education personnel and the adequacy of staff for each unit.
Clause 7.1.3	The faculty/study program has a policy covering the availability of adequate infrastructure facilities.
Clause 7.3	The faculty has documents that regulate the increase in lecturers' and education personnel's awareness of leadership policies.
Clause 7.4.3	The faculty has reasonable means of communication to convey information to interested parties.
Clause 7.5	The faculty has a policy governing the documentation of regularly updated information.
Clause 9.1.1	The Faculty/Program of Study determines what needs to be monitored and measured, evaluates the performance and effectiveness of its Management Quality Standards, and maintains properly documented information.
Clause 9.1.2	Faculty/Study Programs monitor customer perceptions of how their needs and expectations have been met.
Clause 9.1.3	Faculty/Study Programs analyze and evaluate appropriate data and information arising from monitoring and measurement.
Clause 9.2.1	Faculty/Study Program conducts internal audit
Clause 9.2.2	The Faculty/Program of Study plans, conducts, and maintains audits, which consider the process's importance, changes affecting the university, and the results of previous audits.
Clause 9.3.1	Top management reviews the University Strategic Plan at planned intervals to ensure its continued appropriateness, adequacy, effectiveness, and alignment with the strategic direction of the Faculty/Program.

<b>Clauses</b>	<b>Description</b>
Clause 9.3.2	Management reviews are planned and carried out in consideration of ISO 9001 requirements
Clause 9.3.3	Management review results include decisions and actions required under ISO 9001, and documented information is retained as evidence of management review results.
Clause 10.1	Faculty/Study Program determines and selects opportunities for improvement and implements necessary actions to meet customer needs and improve customer satisfaction.
Clause 10.2.1	When nonconformities occur, including those arising from grievances, the Faculty/Study Program reacts to the non-conformities.
Clause 10.2.2	The Faculty/Study Program takes corrective action following the impact of the non-conformity faced.
Clause 10.2.3	The Faculty/Study Program retains documented information as evidence of the nature of the non-conformity and as a basis for subsequent actions and the results of corrective actions.
Clause 10.3.1	Faculty/Study Program has implemented the Quality Management Standard
Clause 10.4.2	The Faculty/Study Program has a management review. It considers the results of the analysis and evaluation and the management review outputs to determine if any needs or opportunities should be addressed as part of continuous improvement.

Based on the clauses applied in the management of the institution above, the faculties strive to improve quality and quality according to ISO standards continuously, presented in the following table:

**Table 2.** Implementation of Quality Management at the Faculty/Study Program Level

<b>N.</b>	<b>Clauses</b>	<b>Description</b>
1	4	<ul style="list-style-type: none"> <li>• Internal and external issue analysis documents;</li> <li>• Measurement of needs and expectations of stakeholders (students, users, lecturers, education personnel);</li> <li>• Leading Performance Indicators and Additional Performance Indicators;</li> <li>• Organizational structure and positions;</li> <li>• <u>Input-output process of organizing education.</u></li> </ul>
2	5	<ul style="list-style-type: none"> <li>• Opportunity &amp; risk identification documents;</li> <li>• Evidence of stakeholder satisfaction measurement;</li> <li>• Infrastructure facilities;</li> <li>• Commitment documents;</li> <li>• Documents have been socialized to the entire academic community.</li> </ul>
3	6	<ul style="list-style-type: none"> <li>• Planning policy;</li> <li>• Policy on Educational Organizations Management System (EOMS);</li> <li>• Documents on achieving institutional goals;</li> <li>• Changes in education management strategies for the better</li> </ul>

N.	Clauses	Description
4	7	<ul style="list-style-type: none"> <li>• Policy on the availability of facilities and infrastructure;</li> <li>• Stakeholder satisfaction survey documents;</li> <li>• Policy on human resources;</li> <li>• Documents governing awareness raising of lecturers staff;</li> <li>• Documentation of regularly updated information.</li> </ul>
5	9	<ul style="list-style-type: none"> <li>• Effectiveness of the Management Quality Standard,</li> <li>• Analyze and evaluate data,</li> <li>• Conduct an internal quality audit</li> </ul>
6	10	<ul style="list-style-type: none"> <li>• Determine and select opportunities for improvement,</li> <li>• Take corrective action,</li> <li>• Maintain documented information and</li> <li>• Conducting Management Review Meetings</li> </ul>

### 3.2 1 Clauses at the University Units Management Level

Meanwhile, based on information on audit results documented at the university work unit level, information is obtained as in the following table:

**Table 3.** Key information findings based on ISO standard clauses at the university unit management level

Clauses	Description
Clause 4.1	The Quality Policy documents, Quality Objectives, Risk Management, Position Information and Analysis, and Standard Operating Procedures have data on facilities and infrastructure. Only those documents that the leadership has approved are available.
Clause 5.3	Each unit has a policy document that has been socialized to the relevant academic community and archived in a neat and structured manner to facilitate identification.
Clause 9.2.1	Each unit has guidelines for reporting mechanisms and status determination, conducts internal audits, and evidence of monitoring and evaluation of activities.

Based on the clauses applied in the management of the institution above, it was found that each work unit at the university has strived to continuously improve quality quality according to ISO standards, as presented in the following table:

**Table 4.** Implementation of Quality Management at the Work Units/Internal Institutions Level

N.	Clauses	Description
1	4	<ul style="list-style-type: none"> <li>• Quality Policy document;</li> <li>• Quality Objective document;</li> <li>• Risk Management document;</li> <li>• Position Information and Position Analysis documents;</li> <li>• Standard Operating Procedure document;</li> <li>• Facilities and infrastructure data documents.</li> </ul>

N.	Clauses	Description
2	5	<ul style="list-style-type: none"> <li>• Quality documents have been socialized to the entire academic community;</li> <li>• Archiving of documents in a neat and structured manner.</li> </ul>
3	9	<ul style="list-style-type: none"> <li>• Reporting Mechanism and Status Determination</li> <li>• Conducting internal audits</li> <li>• Monitoring and evaluation of activities</li> </ul>

In implementing ISO activities, the university has carried out stage two external audit activities for the International Organization for Standardization (ISO) Certification, 9001: 2015 and 21001: 2018. This audit was held for three days with auditors from MSC Global Indonesia and was a continuation of the previous stage one audit from the previous month. ISO 21001: 2018 is also intended to be the basis for university accreditation by the National Accreditation Board for Higher Education. The audit involved two auditors from MSC Global Indonesia, namely one leader and one member.

## 4 Discussion

### 4.1 Contextual Analysis & Stakeholder Orientation

At the heart of ISO 9001 lies Clause 4 (“Context of the organization”) and Clause 5 (“Leadership”), which the data show are well-documented at the faculty level: internal/external issue analyses, stakeholder-needs measurement, KPIs, organizational structure, and documented commitment to social responsibility. This comprehensive mapping reflects one of the critical success factors identified in global QMS implementations—namely, robust stakeholder engagement and context evaluation[3], [12]. Moreover, the literature highlights that when universities systematically document both opportunities and risks (as under Clause 5.1.1–5.1.3), they achieve higher consistency in meeting academic and regulatory requirements[13], [14].

Faculties have invested heavily in documentation—issue registers, stakeholder surveys, commitment archives—which signals a mature orientation toward ISO’s process approach. However, numerous studies warn that over-documentation without parallel emphasis on staff understanding can lead to “paper QMS” with limited behavioral change[3], [15]. The data note socialization (Clause 5.2.2, 5.3) but do not quantify comprehension levels; future research could probe staff perceptions of these documents to ensure genuine buy-in.

### 4.2 Strategic Planning & Resource Alignment

Clause 6 (planning) and 7 (support) focus on translating context analysis into policies, resource allocation, and infrastructure. You report documented planning policies (risk and opportunity analysis), EOMS policies, goal-achievement plans, and infrastructure availability. That aligns with findings that strategic integration of QMS into university master plans is a keystone for sustainability[16], [17]. Furthermore, adequate facilities and staff policies (Clause 7.1–7.1.3) are repeatedly cited as critical success factors; without them, the QMS cannot permeate teaching, research, and community service functions[18], [19].

While policies exist, the literature suggests that perceptions of resource adequacy often diverge between management and frontline faculty, leading to tensions in implementation[20], [21]. A targeted survey or focus-group study could reveal whether lecturers and staff feel the infrastructure and training are sufficient to meet the documented policies.

#### **4.3 Monitoring, Measurement & Internal Audit**

Clause 9's emphasis on "Performance evaluation" is evident: documented identification of what to monitor (9.1.1), stakeholder-satisfaction measurement (9.1.2), data analysis (9.1.3), and a complete internal audit cycle (9.2.1–9.2.2). That echoes global evidence that continuous monitoring and robust internal audits drive QMS effectiveness in HEIs[22]–[24]. In particular, the dual focus on both "process effectiveness" and "customer perceptions" is a best practice for closing feedback loops and fostering continual improvement[25].

The data do not specify the frequency or depth of audits. However, the literature warns that annual audits alone may be insufficient; "surprise" or rotational audits can uncover latent nonconformities and reinforce a culture of quality[17], [26]. Embedding cross-unit peer reviews could strengthen the audit regime and surface diverse perspectives on compliance[27].

#### **4.4 Corrective Actions & Continual Improvement (Clause 10)**

Clause 10's corrective-action focus—identifying improvement opportunities (10.1), reacting to nonconformities (10.2.1–10.2.3), and management review of improvement outputs (10.4.2)—is comprehensively documented. Research in HE contexts shows that institutions with explicit mechanisms for corrective action see greater gains in student satisfaction and academic outcomes[3], [18]. The current data indicate evidence retention for non-conformity resolution, a practice linked to more effective root-cause analysis and prevention of recurrence.

The cycle "detect-correct-review" is closed on paper, but the real test lies in measuring the impact of corrective actions on educational performance metrics (graduation rates, research outputs). Embedding key performance targets for post-corrective outcomes would align the QMS more tightly with strategic educational goals[28].

Across all clauses, a pervasive "documentation culture" emerges: over thirty distinct document types ensure traceability and compliance, yet ISO scholars caution that excessive paperwork can undermine process agility and pedagogical innovation. Leadership commitment is demonstrated through archived policies and regular management reviews, reflecting the widely recognized importance of top-management support in successful QMS adoption[29], [30]. Although training and competence are addressed via formal job descriptions and policy socialization, best-practice literature recommends establishing competence matrices and conducting periodic skill assessments to maintain QMS understanding over time[31], [32]. One potential gap lies in explicit change-management initiatives: while policy socialization occurs, ISO 9001 research underscores that deliberate culture-change programs—such as workshops, quality-champion networks, and measured cultural indicators—must move beyond procedural compliance toward genuine organizational transformation.

#### **4.5 Implementation of Management Standards at the Internal Work Unit Level**

The data show that each university unit has, at the management level, documented Quality Policies and Objectives, Risk Management, Position Information/Analysis, SOPs, and facilities-



infrastructure records (Clause 4.1). That aligns with the literature emphasizing that "understanding the context of the organization" and establishing documented information are indispensable first steps in ISO 9001:2015 QMS deployment in higher education institutions (HEIs)[33]. However, while documentation is robust, the mere presence of records does not ensure their effective use—studies warn of a "paper QMS" syndrome where documents exist but are not integrated into daily decision-making or continuous improvement cycles[34]. The documentation evidence from the units suggests pride in "having everything on file," yet also reveals uncertainty on how these documents guide risk-based decisions—pointing to a gap between documentation and strategic application.

Meanwhile, Clause 5.3 requires leadership to "communicate the importance of effective quality management" and to ensure QMS requirements are established and understood. The data indicate that units have socialized policy documents and maintain neat archives. That demonstrates top-management commitment to transparency, echoing findings that visible leadership engagement and structured socialization boost stakeholder buy-in in HEIs[35]. However, the literature also cautions that socialization must be bi-directional—combining top-down policy rollout with bottom-up feedback mechanisms—to foster genuine ownership and continuous refinement[36], [37]. Interviewees acknowledge open access to policies, but some report limited channels to challenge or improve them, suggesting that "socialization" currently emphasizes dissemination over dialogue.

Then, under Clause 9.2.1, units must implement internal audits, reporting mechanisms, and monitoring/evaluation. The findings confirm that internal audits occur and the monitoring evidence is archived. It is consistent with best-practice QMS in HEIs, which shows that regular audits strengthen process compliance and identify nonconformities for corrective action[4]. However, audit literature emphasizes nonconformity detection and effective closure through root-cause analysis and corrective action planning (Clause 10)[38]. Interview feedback points to audits often stopping at "finding reports" without systematic follow-through on corrective measures—indicating a weakness in the audit-to-improvement linkage.

#### **4.6 Implementation of ISO-Based Quality Management in Indonesian Higher Education Institutions**

In Indonesia, the quality of education in educational institutions is structured based on two references. The first is the National Education Standards listed in Government Regulation No. 19 of 2005 concerning National Education Standards, which was later refined by Government Regulation No. 32 of 2013. National Education Standards are the minimum criteria regarding the education system in all jurisdictions of the Unitary State of the Republic of Indonesia[39]. They serve as the main guideline in planning, implementing, and monitoring education to realize quality national education.

As for the second quality reference, recently, educational institutions have been directed to refer to the ISO 2001: 2018 quality management system. The ISO 2001: 2018 standard is an educational organization management system adapted from ISO 9001: 2015. This standard is specifically prepared for the education sector to achieve its goals and carry out its main function: providing quality education. Two mappings of education quality based on NES and ISO are done to ensure the quality of education in educational institutions, especially Indonesian higher education.

The implementation of the ISO standards of the university under study begins with the availability of documents, including a) Quality Policy, b) Quality Objectives, c) Risk Management, d) Position Information, and e) standard operating procedures. These documents are the framework and foundation for running the organization.

The university's efforts to achieve quality through ISO in education adopted the ISO 9001: 2018 approach as a universal quality management standard relevant to higher education institutions. It meets needs and improves customer satisfaction[40], [41].

The integration of ISO 21001:2018 is designed as a management system for institutional organizations aiming to holistically improve education quality [2], [42]. This standard emphasizes meeting the expectations and needs of all stakeholders.

The benefits obtained from the implementation of this ISO in integrating ISO will provide benefits, including a) improving education quality standards, b) increasing customer satisfaction, such as students, parents of students, and stakeholders, c) increasing the efficiency and effectiveness of organizing institutions, and d) strengthening the competitiveness of universities.

This is in accordance with Ozbek's (2020) opinion, which explains that the benefits of ISO Implementation in education will include Improving education quality standards, improving educational customer satisfaction, including students, parents, and communities, improving the efficiency and effectiveness of education delivery, and Strengthening the competitiveness of educational institutions[43].

## **5 Conclusion**

In summary, this study has shown that the implementation of ISO 9001:2015 and ISO 21001:2018 at a State Islamic University in Indonesia has established a comprehensive documentation framework (Clauses 4–7), robust audit and monitoring processes (Clause 9), and formal corrective-action mechanisms (Clause 10) . University units and faculties demonstrate strong leadership commitment through policy socialization, risk-based planning, and management reviews. Nevertheless, the evidence also highlights a "paper QMS" tendency—where documents and audits exist, but their outputs do not consistently translate into measurable improvements in teaching, learning, or organizational performance. The limited follow-through on corrective actions and the absence of explicit metrics for post-audit impact reveal a critical gap between procedural compliance and strategic quality gains.

Moving forward, higher education institutions should strengthen the audit-to-improvement linkage by instituting formal corrective-action registers with clear responsibilities, deadlines, and outcome indicators, thereby closing the Plan-Do-Check-Act loop in practice, not just on paper . Additionally, fostering bidirectional dialogue—through quality circles or stakeholder forums—will bridge the disconnect between top-down policy issuance and bottom-up engagement, ensuring that ISO frameworks drive genuine cultural change. Finally, aligning ISO 21001's learner-centered requirements with national accreditation benchmarks can optimize dual certification benefits, reduce redundancy, and focus institutional efforts on enhancing student outcomes and stakeholder satisfaction. These steps will help Indonesian HEIs move from ISO compliance toward sustained, evidence-based excellence.

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