Incorporation of ISO 21001 and National Accreditation Board for Higher Education Criteria in Indonesia

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Abstract. This study aims to see if universities that implement the ISO 21001 standard can meet the requirements of Indonesia's National Accreditation Board for Higher Education (NAB-HE). This study begins by examining numerous Quality Management (QM) systems, including TQM, EFQM, MBNQA, and ISO 9001, as well as the relationship between accreditation and higher education and the benefits and drawbacks of using ISO 9001 to support accreditation. The concepts, management framework, and provisions of ISO 21001 were then recognized as a QM strategy to match the NAB-HE standards, both philosophically and practically. In the instance of Indonesia, universities can apply the ISO 21001 standard to facilitate the fulfillment of nine National Accreditation Board for Higher Education requirements at the institutional level (NAB-HE). Universities in Indonesia can use the ISO 21001 standard to reconcile the implementation of the National Standard for Higher Education (NS-HE), internal quality assurance systems, and compliance with national accreditation standards. Higher education institutions can improve their national accreditation ratings by embracing these criteria.

Keywords: Quality Management · ISO 21001 · Higher Education · Accreditation · Criteria of NAB-HE

1 Introduction

Higher education has entered a quality era, and quality assurance institutions within each educational institution are essential for maintaining and improving education services, accreditation, and university rankings [1]. Education policymakers seek to increase higher education standards and quality at the national and international levels by establishing accreditation agencies and university rankings [2]. Higher education institutions adapt and adjust to national and international accreditation organizations' standards and quality needs [3]. Accreditation serves as a roadmap for an organization to build a high-quality culture by evaluating various factors such as leadership, governance, resource provision, and learning quality [4]. Accreditation also helps organizations unify their vision, mission, goals, and strategic direction emphasizes performance management, improves the quality of educational products and services, and encourages sustainability [5].

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Unfortunately, corporate culture, the unequal weighting of research and teaching, and a lack of attention to innovation and transformation are some of the challenges to accreditation that higher education scholars and leaders face [6]. Professors also oppose accreditation because it may increase effort, generate negative emotions like worry and insecurity, and cause uncertainty about accreditation [7].

On the other hand, current trends show that university management systems development aims to align the vision, mission, strategic objectives, policies, culture, and key performance indicators [8]. As a result, some institutions use a Quality Management (QM) strategy to develop their organizational management systems. Stakeholder compliance, governance, resource management, teaching and learning, and performance are all areas where the university practices QM. QM concepts are applied at all levels of an organization, from the study program to the institutional level [9].

Total Quality Management (TQM), the European Foundation for Quality Management (EFQM), the Malcolm Baldrige National Quality Award (MBNQA), and the International Organization for Standardization (ISO) are just a few examples of relevant quality management systems that universities might use. ISO 9001 is used by many educational institutions to achieve their vision, mission, and goals and create competent graduate skills. Unfortunately, the ISO 9001 standard is not industry-specific, and universities frequently fail to understand the standards in educational businesses [10]. To address these concerns, the International Organization for Standardization published ISO 21001:2018, a management system standard for educational institutions, in 2018. Since the National Standardization Agency (NSA) accepted the ISO 21001 standard as SNI ISO 21001 in June 2019, it has gained popularity in Indonesia. The NSA extensively disseminates ISO 21001 in Indonesian colleges. Participants in socialization sessions frequently inquire if ISO 21001 enables colleges to meet the NAB-HE accreditation criteria.

1.1 A Quality Management Approach in Higher Education

Universities can use quality management methods like TQM, EFQM, MBNQA, or ISO to improve organizational management. The strategy, planning procedures, people resources, educational products, service delivery, and the long-term accomplishment of desirable, enduring, and effective outcomes are all part of the approach. The TQM approach has the advantage of employing input-process-output criteria to assess the academic quality of university programs. The input-based variables are concerned with pedagogy, infrastructure, and the work/learning environment; the process-based variables are concerned with students and faculty; and the output-based variables are concerned with academic program quality [11]. To ensure that the enabling requirements and performance outcomes were satisfied [12], the institution used the MBNQA criteria for the self-assessment instrument [13]. According to the MBNQA, universities can also use EFQM criteria for self-assessment tools to help build a customer-focused and quality service culture [14]. In addition to these three models, many universities have embraced the ISO 9001 quality management system standard to monitor the quality of planning, work environment, facilities, and ICT use, contributing to university performance and customer satisfaction [15]. While the emphasis is on results, the implementation of QM impacts the organization's operational performance [16].

1.2 Accreditation of Indonesian Higher Education

Indonesian universities must adapt to global trends in educational service quality management. As a result, to get a top grade for the accreditation of study programs and institutions, they must build a reliable Quality Assurance System [17]. According to Regulation No. 5 of 2020 by the Minister of Education and Culture of the Republic of Indonesia, accreditation is an external quality assurance system integrated into higher education's overall quality assurance system. As a result, to ensure compliance with the National Standard for Higher Education, institutions must implement a quality assurance system (NS-HE). There are eight educational standards, eight research standards, and eight community service standards in the NS-HE.

Meanwhile, the National Certification Board for Higher Education (NAB-HE) accreditation criteria include NS-HE plus criteria for Vision, Mission, and Objectives and a student criterion. Outcome-based Accreditation (OBA) is a requirement for each level of NAB-HE accreditation. As a result, each criterion must be measured in terms of performance. Furthermore, the NAB-HE criteria are unsuitable for a process/systems approach because they are geared toward OBA. However, this strategy is used by many quality management systems, including ISO standards, to manage an organization's business operations and achieve the required goals [18].

1.3 Development of the Relationship Between ISO 21001 Clauses and NAB-HE Criteria

1.3.1 The Connection Between ISO 21001 Clauses and NAB-HE Criteria

We compared ISO 21001 clauses 4–10 to NAB-HE accreditation standards. We started by comparing the names of each clause to the NAB-HE standards. In general, NAB-HE assessors evaluate each criterion based on established criteria. Meanwhile, the ISO 21001 auditor audits to determine whether the EOMS implementation meets the audit criteria (ISO 21001 standard). There is, however, a logical connection between the ISO 21001 clause and the NAB-HE requirement, as shown in Table 1. As is well known, the ISO clause focuses on how the organization's procedures comply with the ISO 21001 clauses rather than how the clauses' performance indicators are monitored.

Performance indicators for each criterion in the NAB-HE standards have been developed due to outcome-based accreditation. Educational institutions might combine ISO 21001 and NAB-HE requirements to achieve these two goals. Academic institutions may want to start by getting their governance systems ISO 21001 certified. Second, universities can increase the effectiveness of their governance systems by using the NAB-HE criteria's performance indicators.

Figure 1 shows how the ISO 21001 clause is set up as a quality management model with requirements for enablers and results. This shows how clauses 4–10 of ISO 21001 relate to the nine NAB-HE criteria [19]. The ISO 21001:2018 clause is in the text box. The NAB-HE criteria are in the bold text box. Universities can use this model to run their business operations in a way that helps them reach their vision, mission, and goals while still meeting ISO 21001 and NAB-HE requirements.

Table 1. The connection between ISO 21001 clauses and NAB-HE criteria

Clauses/sub-clauses of ISO 21001	Indicators of the NAB-HE criteria
4. Context of the organization 4.1. Understanding the organization and its context 4.2. Understanding the needs and expectations of interested parties 4.3. Determining the scope of the management system for educational organizations 4.4. Management system for educational organizations (EOMS)	1st Criteria: Vision, Mission, Goals, and Strategy (VMGS) Universities must have long-, medium-, and short-term development plans that incorporate performance metrics and targets to gauge their success. The university has a strategic plan and an approval and determination process in place that addresses the following five aspects: 1) involves stakeholders; 2) relates to the previous strategic plan's accomplishments; 3) refers to the institution's VMGS; 4) analyzes internal and external challenges; and 5) is approved by top management.
5. Leadership 5.1. Leadership and commitment 5.2. Policy 5.3. Organizational roles, responsibilities and authorities	2nd Criteria: Organization role, Governance, and Cooperation Assessment indicators from these criteria include the stakeholder satisfaction; availability of organizational structure and job descriptions; availability of evidence of communication between leadership and staff to encourage the achievement of the VMGS; availability of evidence implementing policies and guidelines for the management of education products and services; the existence of an Internal Quality Assurance System (IQAS) and documented information related to their activities.
6. Planning 6.1. Actions to address risks and opportunities 6.2. Educational organization objectives and planning to achieve them 6.3. Planning of changes	2nd Criteria: Organization role, Governance, and Cooperation Assessment indicators for these criteria include the availability of governance system documents that ensure accountability, sustainability, transparency, and risk mitigation; the availability of evidence demonstrating best practices in university governance and risk management. Performance analysis takes into account the following two factors: 1) using a method to assess performance achievement, the results are examined and evaluated; and 2) performance achievement analysis comprises identifying root causes, factors influencing performance achievement success or failure, and appropriate follow-up.

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Table 1. (*continued*)

Clauses/sub-clauses of ISO 21001	Indicators of the NAB-HE criteria
7. Support 7.1. Resources (Human resources, Facilities, Environment for the operation of educational processes, Monitoring and measuring resources, Organizational knowledge) 7.2. Competence 7.3. Awareness 7.4. Communication 7.5. Documented information	4th Criteria: Human resources; and 5th Criteria: Financial and facilities resources Assessment indicators for 4th criteria include: there are policies and systems for recruitment, development, monitoring, rewards, sanctions, and termination of employment for lecturers and education staff; the effectiveness of the recruitment, development, monitoring, compensation, and sanctioning system on the availability of resources in terms of numbers, educational qualifications, and competencies; implementation of satisfaction surveys and feedback from lecturers and education staff on HR management; The assessment of indicators for 5th criteria includes the existence of policies and systems for financing the implementation of higher education; the adequacy, accountability, and sustainability of financing; there are policies and procedures for the provision and maintenance of facilities and infrastructure to implement teaching, research, and community service.
8. Operation 8.1. Operational planning and control 8.2. Requirements for the educational products and services 8.3. Design and development of the educational products and services 8.4. Control of externally provided processes, products and services 8.5. Delivery of the educational products and services 8.6. Release of the educational products and services 8.7. Control of the educational nonconforming outputs	3rd Criteria: Students; 6th Criteria: Education; 7th Criteria: Research; and 8th Criteria: Community Service The indicators for 3rd criteria include: the existence of a new student admissions system policy that meets the principles of open access and equity; the effectiveness of a fair and objective new student admission system, a balanced ratio of students to lecturers, and education staff support the effectiveness and efficiency of the process learning; the existence of policies, programs, and student achievements following the interests, talents, and professions; the presence of policies and service systems for students. Indicators for 6th criteria include policies for developing curriculum, learning processes, assessment systems, and quality assurance systems to support graduate learning outcomes in line with the institution's vision and mission and policies for integrating research activities and community service in the educational process. The indicators for 7th criteria include developing and implementing research, creating an excellent study in line with the university's vision and mission, establishing the research groups and laboratories. The indicators for 8th criteria include developing and implementing community service activities, creating excellent community service programs in line with the university's vision and mission, and establishing community service groups.

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Table 1. (*continued*)

Clauses/sub-clauses of ISO 21001	Indicators of the NAB-HE criteria
9. Performance evaluation 9.1. Monitoring, measurement, analysis, and evaluation 9.2. Internal audit 9.3. Management review	9th Criteria: Outcomes and achievements of education, research, and community service. The assessment of these criteria includes the productivity of educational programs, assessed from the efficiency of education and student study period; graduate tracking results, feedback from graduate users, and stakeholders' perceptions of the quality of graduates following graduate learning outcomes; the number of publications, the number of citations, the number of intellectual property rights, and the impact of research results on the realization of the vision and implementation of the mission, as well as the contribution of community service to the development and empowerment of social, economic, and community welfare; adoption of research and community service results by interested parties.
10. Improvement 10.1. Nonconformity and corrective action 10.2. Continual improvement 10.3. Opportunities for improvement	Organizations must maintain and enhance performance indicators for each NAB-HE criterion in order to maintain high accreditation ratings and accomplish the organization's vision, purpose, and objectives.

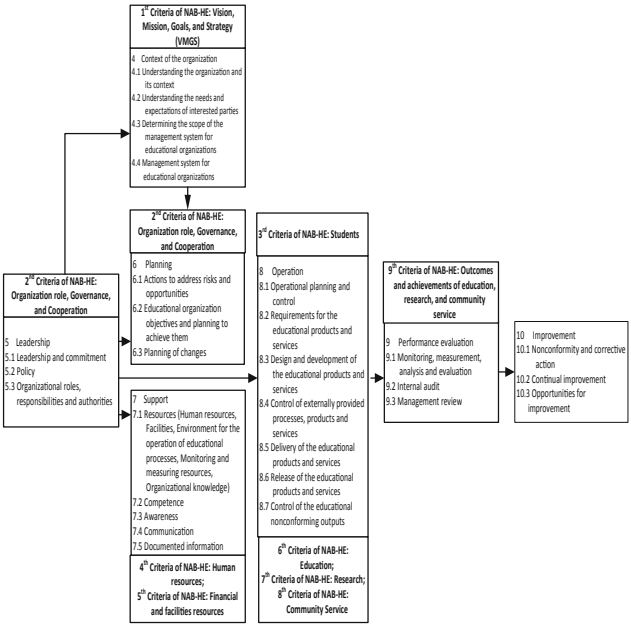

Fig. 1. The relationship between the clauses of ISO 21001:2018 with the NAB-HE criteria

2 Discussion

t is intriguing to see how universities came up with ISO 21001 as a quality management system in response to the difficulties in meeting NAB-HE criteria. While many institutions have attempted to include the ISO 9001 standard into their overall administration, these quality management system standards are rarely linked to certification requirements. There are several advantages of adopting the ISO 9001 standard. The advantages include the emergence of a quality movement across multiple business processes through the application of quality management concepts and principles [20, 21], which has an impact on improving quality in the workplace, documentation, infrastructure maintenance, information technology, knowledge, and communication [15, 22].

The ISO 21001 standard is different from the ISO 9001 standard as it focuses on management systems for educational organizations (EOMS). Implementing ISO 21001 could be helpful because it works well with national and regional standards within international frameworks [23]. Figure 1 shows how well these standards fit in with the NAB-HE criteria. To meet the NAB-HE accreditation criteria indicators, university leaders must show success in strategic planning, resource management, education service management, research, community service, and the achievement of desired outcomes that align with the organization's vision and mission and goals. Because of this, leaders should be able to successfully implement the ISO 21001 standard and meet the indicators of the accreditation criteria [5].

Even though the ISO 21001 standard has performance indicators for educational organizations, these indicators are general and can be used for all levels of education. Because of this, institutions may add the ISO 21001 clause to their NAB-HE criteria for higher education. The university gets two things out of this integration. To start, the leader makes sure that university operations follow the ISO 21001 standard and that process performance is at its best by using NAB-HE criteria indicators.

3 Conclusion

Adopting the ISO 21001 standard is good for educational institutions because it helps them ensure that their vision, mission, and goals are met. Universities could use the NAB-HE criteria indicators to get the results they want. So, the ISO 21001 standard is in line with the accreditation, and universities that use this standard consistently have the highest level of organizational consistency. This makes it possible to improve the ranking of nationally accredited institutions and study programs. This article is about how the ISO 21001 clause and the NAB-HE work together in higher education. Thus, future research can include formal education in elementary and secondary schools and other topics.

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