

The Impact Of ISO 21001 Implementation and Stakeholder Satisfaction in a Study Program

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ABSTRACT

The purpose of this study is to present the impact of the implementation of the ISO 21001 educational organization management system and stakeholder satisfaction in a study program—Health Polytechnic in East Java. This study uses an action research approach starting from the implementation of EOMS ISO 21001, certification audit, to stakeholder satisfaction measurement. During the first implementation of EOMS ISO 21001, there were four minor category findings from the certification body's audit. On the other hand, the average score on the stakeholder satisfaction survey was 3.5 on a scale of 4. Additionally, the implementation of this management system standard has yielded positive results, including increased management commitment, a focus on student-centered learning, staff empowerment through professional development, the implementation of the PDCA cycle in the learning process, and increased stakeholder satisfaction.

Keywords: ISO 21001, Audit, Stakeholder survey, Study program.

1. INTRODUCTION

The ISO 21001 standard as an educational organization management system has the ability to create student competencies through the delivery of educational services and increase satisfaction from stakeholders (ISO, 2018). Study programs in creating student competencies are generally based on the concept of Outcome Based Education (OBE). OBE begins with the design and development of the curriculum, the implementation of student-centered learning processes and assessments, and improving the quality of learning through the Plan-Do-Check-Act (PDCA) cycle (Rosiawan, 2023). In implementing OBE, educational organizations need to have an understanding of the ISO 21001 management framework, which consists of three main aspects, namely, risk-based thinking, process approach, and PDCA cycle on an ongoing basis. Educational organizations need to plan and implement actions to address risks and opportunities from the results of identifying internal and external issues to achieve the desired results. The process approach allows organizations to control interactions between processes to achieve consistent performance and satisfy stakeholders. Organizations make continuous improvements based on data/information in the delivery of educational services through the PDCA cycle (Trisnawati & Rosiawan, 2023).

A number of impacts in implementing this standard, such as organizations must involve stakeholders in the curriculum design and development process, teaching practitioners, to stakeholder satisfaction surveys; and increasing assurance and competitiveness (Gilbert, 2020). Furthermore, a number of other researchers discuss the impact of standards (ISO 9001) on organizational performance or customer satisfaction, such as: there is a positive impact on customer satisfaction (Yaya et al., 2011); the implementation of ISO 9001 increases process orientation and ensures consistent risk management practices throughout the organization (Oudrhiri et al., 2022); the impact on management, communication, learning processes and external relations (Rodríguez-Mantilla et al., 2019); the impact on the work environment, documentation and records management, customer satisfaction, infrastructure, and facilities (Moturi & Mbithi, 2015); impact on improving class scheduling, meetings, staff expectation analysis, and recognition of staff achievements (Rodríguez-Mantilla et al., 2021); vocational schools use the standard as a means to provide strategic focus and as a basis for planning (Gamboa & Melão, 2012); Iqbal (2024) showed that staff training significantly affects the success of implementing the ISO 9001 standard. However, from a number of these studies, few have discussed the impact of implementing the ISO 21001 standard on stakeholder satisfaction. This gap prompts the author to investigate the relationship between the implementation of ISO 21001 and stakeholder satisfaction in a study program.

2. RESEARCH METHODS

2.1 Setup of The Educational Organization Management System

In Figure 1., the action research begins with the setup of the educational organization management system in Study Program X at East Java Health Polytechnic. The Polytechnic's leadership, study programs, and staff took part in setting up the SMOP ISO 21001:2018 system. These activities included: a) getting to know each other; b) training on how to understand 21001:2018; c) making EOMS documents like guidelines, standard operating procedures, and forms; d) reviewing and revising documents; e) training on internal audits; f) conducting internal audits; and g) reviewing the management.

After that, the study program invites a certification body to conduct an ISO 21001 certification audit. There are two audit stages to obtain this certification, namely, stage 1 and stage 2 audits. In the stage 1 audit, the certification body verifies that all EOMS documents from the study program have met the adequacy of documents according to the requirements of the ISO 21001 standard. While in the stage 2 audit, the certification body conducts an onsite audit, by visiting the study program location to verify through interviews, observations, and document searches to ensure that management practices in the study program are in accordance with ISO 21001 requirements and are declared effective in achieving their objectives. The certification body provides recommendations for obtaining an ISO 21001 certificate for the study program based on the results of these two audit stages.

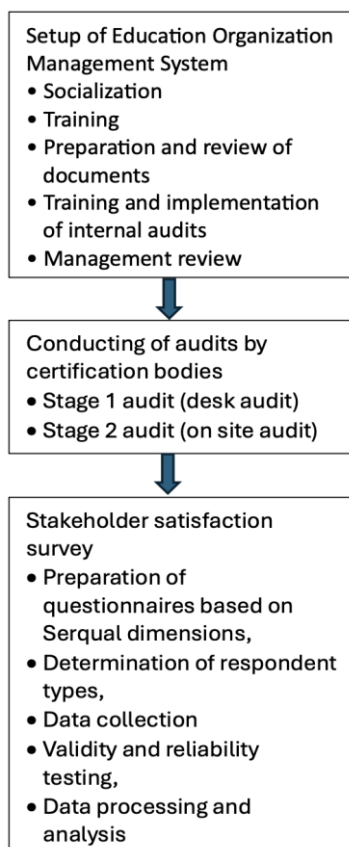


Figure 1. Research steps

2.2 Stakeholder Satisfaction Index Measurement

A few months after the certification audit, in the same year (2022), the study program routinely conducted a community satisfaction index survey. The study program measured stakeholder satisfaction perceptions regarding the implementation of ISO 21001. The SERVQUAL dimensions in higher education (Jain et al., 2011) were used as a reference in developing the questionnaire, and the question variables were changed to reflect the service elements offered by the study program to its stakeholders (Table 2.1). This service variable is the output of the study program in implementing EOMS ISO 21001. In the standard itself, there are requirements that require organizations to measure the minimum satisfaction of students, staff, and graduate users.

Table 1. Service quality dimensions and service variables in the questionnaire

Servqual Dimensions		Service variables
Tangible (T)	T1	Cleanliness and tidiness of the service room
	T2	Comfort of service room
	T3	Quality of facilities
Empathy (E)	E1	Friendliness and politeness of service staff
	E2	Service officers' concern for the needs and expectations of service users
Reliability (Rel)	Rel1	Compliance of service requirements with service type
	Rel2	Ease of understanding service procedures
	Rel3	Reasonableness of service charges
	Rel4	Compliance of services with service standards
Responsiveness (R)	R1	Speed of service delivery
	R2	The readiness of officers in assisting new users
Assurance (A)	A1	The ability of officers to answer questions from service users
	A2	Functionality of complaint and claim handling

After compiling the questionnaire, the next step is determining respondents (study program stakeholders), distributing and collecting data, testing validity and reliability, and processing and analyzing data.

3. RESULTS AND DISCUSSIONS

3.1. Certification audit results

The audit findings from the certification body for study program X showed four minor category findings. These minor findings are mainly related to the fact that the organization has not conducted: a) a review of external and internal issues each period; b) identification of stakeholder needs and expectations; c) determination of EOMS targets at all levels, functions, and strategies for achieving them; and d) discussion of the management review agenda related to vendor performance. From these four findings, the organization then identifies the root cause and corrective actions. Once the auditee sends an action plan based on the findings, an auditor from the certification body checks to see if the improvement plan worked by looking at proof that the auditee actually took corrective actions. If all goes well, the findings are closed.

3.2 Results of stakeholder satisfaction measurement

Table 2. Type and number of respondents

Type of respondents	Amount
Student	151
Staff	5
Prospective students	1
Alumni	5
Parent	8
Users	61
Partners	44
Total	275

If the value of "Corrected Item-Total Correlation" is higher than the value in the correlation table (r), then the questionnaire is valid and reliable. If the value of "Cronbach alpha" is higher than 0.6, then the questionnaire is also valid and reliable. By using the SPSS version 20 statistical application, it shows that the results of the validity and reliability tests have met the specified requirements.

Table 3. Stakeholder satisfaction measurement results

Servqual Dimensions	Service variables	Score average (scale 4)
Tangible (T)	T1	3.55
	T2	3.48
	T3	3.41
Empathy (E)	E1	3.59
	E2	3.51
Reliability (Rel)	Rel1	3.48
	Rel2	3.50
	Rel3	3.42
	Rel4	3.45
Responsiveness (R)	R1	3.43
	R2	3.49
Assurance (A)	A1	3.52
	A2	3.48

The average score of stakeholder satisfaction levels (Table 3) indicates that the services provided in the study program are highly satisfactory.

3.3. Discussions

The following can be talked about based on the results of putting in place the ISO 21001 educational organization management system (EOMS), the results of certification audits, and the levels of satisfaction among stakeholders.

- Collaboration among Polytechnic and Study Program leaders, staff, students, and graduate users in participatory decision-making has significant impacts. While cooperation among these groups can enhance decision-making, it may also lead to conflicts of interest that complicate the process. Additionally, relying too heavily on participatory methods might slow down necessary decisions, hindering timely responses to urgent issues. the progress of the study program. The study program has a better relationship with stakeholders and can improve communication and collaboration with them. However, the study program has not yet identified the needs and expectations of stakeholders and how to meet them in the process of delivering educational services;
- The commitment of the Polytechnic Director and Head of Study Program is essential for ensuring that the program aligns with stakeholder expectations (Gamboa & Melão, 2012). Conversely, a lack of clarity in communication may lead to misinterpretations of stakeholder needs, ultimately jeopardizing the effectiveness of the educational services provided. the successful implementation of this standard, but this commitment must also be realized in discussing external and internal issues that change very quickly and can affect organizational performance;
- The Polytechnic Director and Head of Study Program are committed to empowering staff through their professional development, particularly in adapting to emerging challenges (Iqbal, 2024). However, it is important to remember that even the best intentions can fail if there aren't strong feedback systems in place. These are needed to find and fix any understanding gaps between stakeholders. This is crucial in improving the quality of learning.
- While the quantity of learning facilities is sufficient, their quality often falls short. Many students find that outdated resources and inadequate maintenance hinder their educational experience, suggesting that quantity alone does not meet their needs. We must improve its quality by renewing equipment, especially in laboratory settings.
- The speed of service delivery must be increased; the use of modern technology can enhance both the learning experience and the efficiency of service delivery. However, it is essential to consider that simply increasing the quantity of resources may lead to inefficiencies if not accompanied by adequate training for staff and students alike. The use of information technology can significantly enhance the effectiveness and efficiency of services.
- Risk management, EOMS goal setting, and achievement strategies are crucial (Trisnawati & Rosiawan, 2023; Oudrhiri et al., 2022). While embracing modern technology can indeed streamline service delivery, over-reliance on these tools may inadvertently overlook the importance of personal interaction and hands-on learning experiences. Also, adding technology could cause problems that aren't expected and make things less effective overall if there

isn't a strong framework for managing risks and setting strategic goals. The study program must incorporate both academic and non-academic functions at all levels.

- As the study program goes on, the level of management maturity must rise, which can lead to more innovative solutions and improved outcomes. Embracing technology can also enhance collaboration and streamline processes, ultimately providing a more efficient learning environment that complements traditional methods rather than replacing them. This implies a need to better measure service quality through stakeholder satisfaction surveys.
- Lecturers must be experts in using data for self-evaluation, the PDCA cycle (Rosawan, 2023). However, relying too heavily on technology and management maturity can sometimes overshadow the importance of interpersonal relationships in education. Additionally, not all stakeholders may be comfortable with constant changes, which could lead to resistance and hinder overall progress and improving student learning outcomes;
- Lecturers must encourage the creation of a learning environment. While high tuition fees can pose challenges, they may also incentivize educational institutions to enhance the quality of their offerings, ultimately benefiting students. Additionally, a focus on data-driven approaches can lead to improved accountability and outcomes, ensuring that educational programs meet the evolving demands of the job market. It is capable of sustaining students' ongoing education; and
- The need to be sensitive to student needs and build a conducive classroom. However, some argue that high tuition fees can create barriers for many prospective students, limiting access to education and perpetuating inequality. Moreover, an overemphasis on data-driven approaches may overlook the importance of fostering creativity and critical thinking skills, which are essential for holistic learning and personal development.

4. CONCLUSION

The study's findings show that implementing ISO 21001 has had some positive effects. These include: a) a stronger focus on staff quality culture, especially in systematic learning management and continuous learning improvement through the PDCA cycle; b) leaders who are dedicated to getting staff to focus on meeting the needs and expectations of stakeholders; and c) study programs that use an international standard management system (ISO) as the basis for becoming a better organization. But study programs must also consider the challenges of implementing these standards. These challenges include: a) how to integrate this standard with government requirements and standards established by study programs or polytechnics; and b) how to continuously innovate new methods, products, and educational services to ensure satisfaction for all parties involved. These challenges require a strategic approach that includes ongoing training for staff, collaboration with industry partners, and regular assessment of both processes and outcomes. By addressing these issues proactively, study programs can not only comply with ISO standards but also foster a culture of continuous improvement that benefits students, educators, and the broader community.

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