



## ISO 9001:2015 BASED EDUCATION QUALITY ASSURANCE SYSTEM MODEL IN IMPROVING EDUCATION QUALITY

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### Abstract :

*Educational development in the global era demands educational institutions to improve service quality systematically and sustainably. However, a gap remains between the quality of educational services and stakeholders' needs. This study aims to analyze the implementation of the ISO 9001:2015-based quality management system in enhancing educational quality, as well as to formulate its implementation components and stages within the context of educational institutions. The research problem focuses on how the concepts, principles, and implementation models of ISO 9001:2015 can be integrated into the education quality assurance system. This study employs a qualitative approach using the library research method, with data gathered from scientific journals, academic books, ISO documents, and educational regulations. Data analysis was conducted using the content analysis technique to review and synthesize relevant concepts. The results show that the implementation of ISO 9001:2015 can enhance educational quality through process-based and risk-based approaches, supported by the principles of customer focus, leadership, and human resource engagement. Furthermore, integrating components such as organizational context, the PDCA cycle, and risk management, alongside systematic implementation stages, can strengthen the internal quality assurance system (SPMI) and boost the competitiveness of educational institutions.*

**Keywords :** Quality Management System, ISO 9001:2015, Education Quality Assurance

### INTRODUCTION

Global developments characterized by advancements in information technology, digitalization, and increasing human mobility have brought significant changes to various sectors, including education. Education today is no longer viewed merely as a process of knowledge transfer; rather, it has shifted into a competitive and service-quality-oriented service sector. Educational institutions are demanded to provide added value for students so that they possess adaptive competencies to navigate global dynamics. In this context, the quality of graduates becomes the primary indicator of an educational institution's success in responding to contemporary challenges (Sallis, 2017). However, empirical reality indicates that a gap still exists between the competencies of graduates and the needs of the business and industrial worlds (DUDI – *Dunia Usaha dan Dunia Industri*). Many graduates are not fully prepared to face increasingly complex and technology-based work demands. This condition reflects unresolved issues within an optimal educational quality management system. Furthermore, the public as consumers of educational services has become increasingly rational and critical in choosing educational institutions. They



consider not only the cost factor but also service quality, institutional reputation, and the quality assurance offered. Transparency and accountability have become non-negotiable demands for educational institutions to maintain public trust (Tilaar, 2012).

This phenomenon is further intensified by the growing competition among educational institutions at local, national, and international levels. Educational institutions race to improve their service quality through various innovations, such as digital learning, competency-based curricula, and the strengthening of soft skills. In this situation, institutions that lack a robust quality management system will lag behind and lose their competitive edge. Therefore, a system capable of ensuring the continuous consistency of educational service quality is urgently required. Conceptually, educational quality is highly determined by the effectiveness of the management system implemented within an institution. Quality management serves as a crucial approach to ensuring that all educational processes run in accordance with predetermined standards. One widely adopted approach globally is the ISO 9001:2015 Quality Management System standard. This standard emphasizes the importance of a process approach and risk-based thinking in managing organizations effectively (Gaspersz, 2016).

In contrast to its previous versions, ISO 9001:2015 no longer focuses solely on documentation aspects but places greater emphasis on the role of leadership, understanding the organizational context, and engaging all stakeholders. The core principle of this standard is how an organization can identify risks and opportunities that may affect the achievement of quality objectives. Thus, the approach utilized is preventive rather than merely reactive to emerging problems (Hoyle, 2017). Furthermore, the Total Quality Management (TQM) theory provides an important foundation for managing educational quality. TQM emphasizes that quality is the responsibility of all organizational elements and must be enhanced sustainably through a process of continual improvement. This concept aligns with the principles of ISO 9001:2015, which places customer satisfaction (in this case, students and society) as the primary focus (Oakland, 2014). In the educational context, the implementation of TQM can foster a strong quality culture, where every individual holds a commitment to improving the quality of educational services.

Moreover, within the Indonesian education system, the concept of quality assurance has been regulated through the Internal Quality Assurance System (*Sistem Penjaminan Mutu Internal*—SPMI). SPMI aims to ensure that every educational unit can meet and exceed National Education Standards sustainably. In practice, however, the implementation of SPMI often falls short of optimal performance due to a lack of integration with a more comprehensive management system. Therefore, integrating SPMI with international standards like ISO 9001:2015 serves as a relevant solution to strengthen the education quality assurance system. The primary issue faced by many educational institutions today is the weakness of a standardized internal management system. Many institutions still run educational processes without the support of

clear and well-documented standard operating procedures. Consequently, inconsistencies occur in the execution of both academic and administrative services, which ultimately impacts the quality of educational output.

Additionally, a low awareness of the importance of risk management poses a serious constraint. Most educational institutions tend to be reactive in handling problems, leading to solutions that are often temporary and fail to address the root causes. Yet, in a dynamic and uncertain environment, the ability to identify and manage risks is paramount to maintaining organizational sustainability (ISO, 2015). Another issue lies in ineffective performance evaluation. Evaluations conducted are frequently merely administrative and formalized, without being followed by clear actions for improvement. This indicates that the existing quality assurance system has not been able to drive tangible quality improvements. A lack of integration among work units also leads to suboptimal quality control processes.

Based on these problems, it can be concluded that implementing the ISO 9001:2015 standard in educational institutions is a strategic step toward strengthening the internal quality assurance system. ISO 9001:2015 provides a systematic and structured framework for managing organizational processes, ranging from planning, execution, and evaluation to continuous improvement. Through a risk-based approach, educational institutions can be more proactive in anticipating potential issues that might hinder the achievement of quality objectives.

The urgency of this study lies in the need for an integration model that can combine the strengths of ISO 9001:2015 with the pre-existing internal quality assurance system. This integration is expected to create a powerful synergy in educational quality management, thereby yielding more effective, efficient, and sustainable institutional governance. Furthermore, the adoption of international standards can enhance the credibility and competitiveness of educational institutions at a global level.

Accordingly, this study aims to formulate and analyze the integration model of ISO 9001:2015 into the Internal Quality Assurance System (SPMI). The results of this study are expected to provide theoretical contributions to the development of educational management science, as well as practical contributions for educational institutions in improving service quality sustainably.

## **RESEARCH METHOD**

This study employs a qualitative approach with a library research design, aiming to comprehensively examine various concepts, theories, and empirical findings related to the ISO 9001:2015-based quality management system within the educational context. The qualitative approach was selected as it provides a comprehensive understanding through the interpretation of textual data derived from scientific literature, thereby enabling the researcher to build a robust and systematic conceptual framework (Creswell, 2014). In its execution, this research is descriptive-analytical in nature; it does not merely present theories but also

analyzes the interrelationships between concepts to generate a scientific synthesis relevant to the research focus.

The data sources used are secondary data obtained from national and international scientific journals, reference books on quality and educational management, official ISO 9001:2015 standard documents, and government regulations regarding the education quality assurance system. These sources were selectively chosen based on their relevance, credibility, and recency of information (Sallis, 2017). The data collection technique was carried out through documentary study by searching various academic sources via digital databases, followed by classifying the data based on main themes—such as quality management concepts, ISO implementation, and internal quality assurance systems—to facilitate the analysis process.

Subsequently, data analysis was conducted using the content analysis technique, which aims to identify patterns, meanings, and relationships between concepts in the reviewed literature (Krippendorff, 2013). This analytical process involves data condensation to filter relevant information, data display in a systematic narrative form, and conclusion drawing/verification, which is validated through the comparison of various sources to ensure the trustworthiness of the findings (Miles et al., 2014). Through this approach, the study is expected to generate a comprehensive conceptual formulation regarding the integration of ISO 9001:2015 into the education quality assurance system, thereby providing both theoretical and practical contributions to the development of quality and sustainable institutional governance.

## **FINDINGS AND DISCUSSION**

### **Definition of an ISO 9001:2015-Standard Quality Management System**

A quality management system (QMS) is a structured framework utilized by organizations to ensure that all executed processes consistently produce products or services that meet specific quality standards. In this context, quality is not merely defined as the final output but encompasses the entire process within the organization, ranging from planning and execution to evaluation and continual improvement. As an international standard, ISO 9001:2015 provides comprehensive guidelines for designing and implementing an effective, efficient, and adaptive QMS responsive to changes in the organizational environment (ISO, 2015).

ISO 9001:2015 emphasizes a process approach, which views an organization as a system composed of various interrelated and interacting processes. This approach aims to enhance organizational effectiveness and efficiency in achieving quality objectives by ensuring that each process has clear and measurable inputs, activities, and outputs. Furthermore, this standard integrates the concept of risk-based thinking, which is the organization's capacity to identify, analyze, and manage risks as well as opportunities that may influence the achievement of quality objectives. By adopting a risk-based approach, organizations are expected to become proactive rather than reactive, consistently preventing and reducing undesired effects, and continuously promoting

sustainable system enhancement (continual improvement). Consequently, organizations do not merely focus on resolving problems after they occur but are also capable of performing systematic preventive actions (Gaspersz, 2016).

Moreover, ISO 9001:2015 highlights the role of leadership as a key factor in the successful implementation of a quality management system. Organizational leaders are required to demonstrate a strong commitment to building a quality culture, establishing clear policies, and ensuring the involvement of all organizational members in the quality enhancement process. This aligns with the principles of Total Quality Management (TQM), which state that quality is a shared responsibility and must become an integral part of the organizational culture (Sallis, 2017). With effective leadership, QMS implementation transcends mere administrative compliance and becomes an integral component of organizational strategy.

In the educational context, an ISO 9001:2015-based quality management system plays a strategic role in comprehensively upgrading the quality of educational services. As service organizations, educational institutions are demanded to meet the needs and expectations of their customers—namely students, parents, and the community. Therefore, QMS implementation in education is oriented not only toward outputs such as graduates but also toward the quality of the learning process, academic services, and overall institutional governance. By implementing ISO standards, educational institutions possess a clear benchmark for managing every process systematically and measurably.

#### **Principles of the ISO 9001:2015 Quality Management System**

The application of quality management principles within the ISO 9001:2015 standard serves as an essential foundation for systematically and sustainably improving the quality of educational services. These principles are not only relevant to the industrial sector but are also highly applicable within the educational context, which increasingly demands professionalism and accountability. In practice, several core principles contribute significantly to enhancing educational quality, including customer focus, leadership, and the engagement of all organizational elements. The explanation of these principles is detailed below:

##### **1. Customer Focus**

The first principle is customer focus, which in the educational context refers to the institution's efforts to understand and meet the needs and expectations of stakeholders, such as students, parents, the community, and the business and industrial worlds (DUDI). From a quality management perspective, customers are the parties that determine organizational success; thus, their satisfaction serves as the primary indicator of service quality (ISO, 2015). This principle prioritizes the customers by first identifying the involved parties through satisfaction surveys to assess the feedback received from them (Agus, 2022).

For educational institutions, this means being able to identify student needs across academic dimensions, character development, 21st-century skills, and workforce readiness. Consequently, the curriculum, instructional

methods, and support services must be designed adaptively and responsively to these changing needs. Additionally, the involvement of parents as strategic partners is a crucial factor in ensuring the success of the educational process. Customer-oriented educational organizations are better equipped to generate relevant and high-quality services because they consistently conduct evaluations based on user feedback (Sallis, 2017).

## 2. Leadership

The second principle is leadership, which emphasizes the vital role of institutional leaders in establishing direction, vision, and a quality culture within the organization. In ISO 9001:2015, leadership is defined not only as the capacity to manage an organization but also as a commitment to ensuring that the quality management system operates effectively and is integrated across all organizational activities (Hoyle, 2017). School principals or educational institution leaders serve as strategic agents of change capable of mobilizing resources to achieve quality objectives.

Proactive leadership is essential as a means to provide exemplary role modeling, build trust, eliminate anxiety, maintain honesty, foster open communication, and establish clear visions and missions (Agus, 2022). Furthermore, leaders are responsible for defining quality policies, allocating resources, and conducting continuous evaluations. In the educational context, transformational leadership is highly required to drive innovation and adaptation within a dynamic educational environment (Bush, 2011).

## 3. Engagement of People

The third principle is the engagement of people, which emphasizes that the success of a quality management system heavily relies on the active participation of all organizational members. Within educational institutions, this encompasses lecturers or teachers, educational support professionals, and administrative staff, each playing a specific role in supporting the educational process. This engagement is not merely formal compliance but includes commitment, responsibility, and active contributions toward quality improvement (ISO, 2015). Teachers, as the spearhead of the instructional process, play a critical role in ensuring the quality of educational services and thus must be supported by continuous professional development. Similarly, administrative staff play a vital role in ensuring the smooth operation of both academic and non-academic service processes. Organizations that successfully engage all members actively will achieve quality objectives more seamlessly, as every individual feels a sense of ownership over the quality produced (Oakland, 2014).

By implementing the principle of human resource engagement, employees develop a better perception of their work. They become more inclined to devise corrective actions for their tasks, fostering positive feedback loops between employees and supervisors, improving the quality of peer work relationships, and making internal communication more effective (Agus, 2022).

## **Core Components of the ISO 9001:2015 Quality Management System Model**

An education quality assurance system is a mechanism designed to ensure that all educational administration processes run in accordance with predetermined standards and are capable of producing quality outputs. Within the ISO 9001:2015 framework, several core components serve as the foundation for building an effective quality management system, including an understanding of the organizational context, the application of the PDCA (Plan-Do-Check-Act) cycle, and risk management. These three components are mutually integrated and play a vital role in creating an adaptive and sustainable quality assurance system.

The first component is the organizational context, which requires educational institutions to comprehensively understand internal and external conditions that can affect the achievement of quality objectives. In ISO 9001:2015, organizations are demanded to identify various relevant strategic issues, such as changes in educational policies, technological advancements, labor market needs, and student characteristics (ISO, 2015). Understanding the internal context involves analyzing human resources, organizational culture, institutional structures, and existing systems. Meanwhile, the external context encompasses factors outside the organization, such as public demands, competition among educational institutions, and the dynamics of globalization.

In the educational context, analyzing the organizational environment becomes paramount because educational institutions cannot stand in isolation from their social environment. Tilaar emphasizes that education is part of a social system influenced by various external factors, thus requiring educational institutions to be capable of adapting to ongoing changes (Tilaar, 2012). By thoroughly understanding the organizational context, educational institutions can formulate appropriate strategies to enhance service quality and ensure the relevance of educational programs to community needs.

The second component is the application of the PDCA (Plan-Do-Check-Act) cycle, which lies at the heart of the continual improvement concept in quality management. This cycle consists of four major stages: planning (plan), execution (do), evaluation (check), and corrective action (act). In the context of education, the planning stage includes curriculum development, establishing competency standards, and designing instructional programs that match student needs. The execution stage is carried out through classroom learning processes and other academic activities.

Subsequently, the evaluation stage is conducted to measure the effectiveness of the planned programs. This evaluation can take the form of learning outcome assessments, instructional process monitoring, and educator performance evaluations. The evaluation results are then used as a baseline for the corrective action stage, which involves adjustments or innovations to enhance the quality of educational services. According to Deming, the PDCA cycle is a systematic approach that enables organizations to make continuous improvements through a sustained evaluation process (Evans & Lindsay, 2014). In its implementation within educational institutions, this cycle can be applied not only to the curriculum but also to administrative services, resource

management, and the overall quality assurance system.

The third component is risk management, which represents a crucial update in ISO 9001:2015. This approach emphasizes the importance of risk identification and management as an integral part of the quality management system. In the educational context, risks can manifest as various obstacles with the potential to disrupt the teaching and learning process, such as low teacher competency, limited infrastructure, low student learning motivation, and unexpected policy changes. Therefore, educational institutions need to possess a systematic mechanism to identify, analyze, and control these risks before they impact educational quality (ISO, 2015).

A risk management approach enables educational institutions to be more proactive in facing various challenges. Gaspersz states that organizations capable of managing risks effectively will be better prepared to cope with uncertainty and will have a greater opportunity to achieve quality objectives (Gaspersz, 2016). In practice, risk management can be executed through SWOT analysis, risk mapping, and formulating mitigation plans integrated with the quality assurance system. Consequently, educational institutions do not merely focus on resolving problems after they occur but are also able to prevent potential failures at an early stage.

These three components—organizational context, the PDCA cycle, and risk management—are key elements in building a comprehensive quality assurance system. They complement one another in creating a system that is oriented not only toward achieving standards but also toward sustainable quality improvement. By understanding the organizational context, educational institutions can determine the right direction and strategy; through the PDCA cycle, institutions can ensure that processes run systematically; and with risk management, institutions can anticipate various potential challenges. The integration of these three components is expected to yield an effective, adaptive, and sustainable quality assurance system for improving educational quality.

### **Implementation Stages of the ISO 9001:2015-Based Quality Assurance System**

According to Agus Zaenul Fitri, the implementation of the ISO 9001:2015 quality standard based on the WQA (Worldwide Quality Assurance) guidelines generally consists of four major stages:

1. Preparation stage: In this initial phase, the organization conducts various analytical activities to assess readiness, such as thoroughly reviewing internal conditions, forming a team responsible for drafting quality documents, and fostering a shared commitment to implementing the ISO 9001:2015-based quality management system.
2. Document drafting and control stage: This stage focuses on drafting vital documents that serve as the foundation for executing the quality system, which include quality policies, quality objectives, quality manuals, standard operating procedures (SOPs), work instructions, and various supporting forms. Additionally, document control is performed to ensure they remain relevant and aligned with organizational needs.
3. Implementation stage: In this phase, the organization begins to actively apply

the quality management system by integrating all provisions established in the ISO 9001:2015 documentation into day-to-day operational activities.

4. Registration stage: This final stage is carried out once the organization has ensured that all quality documents are well-structured and executed in accordance with applicable procedures. If the organization successfully obtains ISO certification in this stage, it is declared to have met the quality standards through an audit process conducted by a certification body (Agus, 2022).

When linked to educational institutions, these ISO 9001:2015 implementation stages indicate that improving educational quality cannot be achieved instantly; rather, it requires a systematic, planned, and sustainable process. The preparation stage serves as the initial foundation for educational institutions to perform internal reflections, recognize strengths and weaknesses, and build a commitment toward a quality culture among all faculty, staff, and students (*civitas akademika*). The document drafting and control stage functions as an operational guide that ensures all educational processes – both academic and administrative – run in a standardized and consistent manner. Furthermore, the implementation stage requires educational institutions to internalize all quality procedures into actual practice, so that the quality of educational services can be directly experienced by students and stakeholders. Finally, the registration stage serves as external recognition of the institution's success in implementing a quality management system that complies with international standards.

Accordingly, the application of ISO 9001:2015 in educational institutions is oriented not merely toward achieving certification, but rather toward building an effective and sustainable quality assurance system. Consistent implementation will foster professional, transparent, and accountable educational governance, which in turn enhances public trust. Furthermore, the integration of this standard with the Internal Quality Assurance System (SPMI) can strengthen the competitiveness of educational institutions in facing global demands and the dynamics of the era of disruption.

## CONCLUSION

The implementation of an ISO 9001:2015-based quality management system in educational institutions serves as a strategic step to comprehensively and sustainably improve service quality. This system does not focus solely on the final output in the form of graduates, but also emphasizes the importance of systematic process management, ranging from planning and execution to evaluation and continual improvement. The process-based and risk-based approaches drive educational institutions to be more proactive in anticipating various challenges, thereby minimizing potential quality failures at an early stage.

The successful implementation of this system is highly influenced by the execution of core principles, such as customer focus, effective leadership, and the engagement of all human resources. Educational institutions are demanded to

understand stakeholder needs, build visionary leadership, and foster active participation across all elements to shape a robust quality culture. Furthermore, the application of components such as organizational context analysis, the PDCA cycle, and risk management acts as a critical factor in supporting sustainable quality enhancement. The structured implementation stages, spanning from preparation to registration, demonstrate that quality improvement requires a consistent process. Ultimately, integration with the Internal Quality Assurance System (SPMI) strengthens professional, transparent, and accountable governance, thereby boosting competitiveness and public trust.

## REFERENCES

- Becket, N., & Brookes, M. (2008). Quality management practice in higher education—What quality are we actually enhancing? *Journal of Hospitality, Leisure, Sport & Tourism Education*, 7(1), 40–54.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. California: Sage Publications.
- Evans, J. R., & Lindsay, W. M. (2014). *Managing for quality and performance excellence*. Boston: Cengage Learning.
- Fitri, A. Z. (2022). *Sistem penjaminan mutu pendidikan: Filosofis dan aplikatif-best practices*. Malang: Madani.
- Gaspersz, V. (2016). *Total quality management*. Jakarta: Gramedia Pustaka Utama.
- Hoyle, D. (2017). *ISO 9001:2015 quality management systems handbook*. New York: Routledge.
- ISO. (2015). *ISO 9001:2015 quality management systems – requirements*. Geneva: International Organization for Standardization.
- Krippendorff, K. (2013). *Content analysis: An introduction to its methodology*. California: Sage Publications.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook*. California: Sage Publications.
- Oakland, J. S. (2014). *Total quality management and operational excellence*. London: Routledge.
- Psomas, E., & Antony, J. (2017). Total quality management elements and results in higher education institutions: The Greek case. *Quality Assurance in Education*, 25(2), 206–223.
- Sahney, S., Banwet, D. K., & Karunes, S. (2004). A SERVQUAL and QFD approach to total quality education. *International Journal of Productivity and Performance Management*, 53(2), 143–166.
- Sallis, E. (2017). *Total quality management in education*. London: Routledge.
- Sugiyono. (2017). *Metode penelitian kualitatif, kuantitatif, dan R&D*. Bandung: Alfabeta.
- Tilaar, H. A. R. (2012). *Standarisasi pendidikan nasional: Suatu tinjauan kritis*. Jakarta: Rineka Cipta.
- Zed, M. (2014). *Metode penelitian kepustakaan*. Jakarta: Yayasan Obor Indonesia.