

The Extent of Implementation of ISO 9001:2015 Quality Management System and the Challenges Encountered in Laguna State Polytechnic University

Jerwin Andres Anas

jerwin.anas@gmail.com

College of Business, Administration, and Accountancy, Laguna University, Sta. Cruz, Laguna, Philippines

Abstract

Quality management systems have become an essential framework for improving organizational performance and service delivery in higher education institutions. This study aimed to determine the extent of implementation of the ISO 9001:2015 Quality Management System and identify the challenges encountered in its implementation at Laguna State Polytechnic University. A descriptive research design was utilized, employing a structured questionnaire administered to selected university personnel involved in quality management implementation. The study focused on four major dimensions: management commitment, workplace environment, capacity enhancement, and internal communication. Results revealed that the university demonstrated a high level of implementation of the ISO 9001:2015 quality management system across all dimensions. However, several challenges were identified, including limited resources, insufficient training opportunities, and communication barriers. The findings suggest that while the institution has effectively implemented quality management practices, continuous improvement initiatives are necessary to address operational challenges and sustain organizational performance. The study contributes to the growing body of literature on quality management implementation in higher education institutions.

Keywords: ISO 9001:2015; quality management system; higher education; management commitment; organizational improvement

1. Introduction

Quality assurance has become a central concern of higher education institutions as they respond to increasing demands for accountability, transparency, and continuous improvement. Universities are expected not only to deliver quality instruction and research but also to demonstrate the effectiveness and consistency of their administrative and support services. In response to these expectations, higher education institutions have increasingly adopted structured quality management frameworks to strengthen governance and organizational performance.

One widely adopted framework is the ISO 9001:2015 Quality Management System, an international standard designed to improve organizational processes, enhance service quality, and ensure continuous improvement (International Organization for Standardization, 2015). The standard emphasizes leadership involvement, process orientation, risk-based thinking, and stakeholder satisfaction as essential components of effective quality management.

In higher education, the adoption of ISO standards reflects a growing recognition that universities function as service organizations responsible for delivering consistent and high-quality academic and administrative services. Research indicates that the implementation of ISO-based systems can improve documentation practices, clarify institutional responsibilities, and strengthen accountability mechanisms (Hoyle, 2017).

Despite the increasing number of ISO-certified universities, empirical studies examining the actual extent of ISO implementation and the operational challenges encountered in higher education institutions remain limited. Many studies focus on certification outcomes rather than on how quality systems function within daily institutional operations.

In the Philippine context, state universities and colleges have been encouraged to adopt quality assurance frameworks to improve institutional credibility and public service delivery. The implementation of ISO 9001:2015 in these institutions represents a strategic effort to align governance practices with international standards and to promote continuous improvement.

This study examines the extent of implementation of ISO 9001:2015 and the challenges encountered in a higher education institution. Specifically, it assesses implementation in terms of management commitment, workplace environment, capacity enhancement, and internal communication. By integrating quantitative and qualitative evidence, the study provides a comprehensive evaluation of quality management practices within an academic organization.

2. Literature Review

2.1 ISO 9001:2015 and Quality Management Systems

ISO 9001:2015 is an internationally recognized standard that specifies requirements for an effective quality management system. The standard promotes a process-based approach to management, emphasizing leadership responsibility, risk-based thinking, and continuous improvement (International Organization for Standardization, 2015). Organizations that implement ISO standards are expected to establish systematic procedures that ensure consistency in service delivery and operational performance.

Quality management systems contribute to improved organizational performance by enhancing documentation practices, strengthening internal controls, and supporting evidence-based decision-making. According to Hoyle (2017), the ISO framework encourages organizations to align their operational processes with strategic objectives, thereby improving efficiency and stakeholder satisfaction. Studies also indicate that ISO certification can enhance organizational credibility and operational effectiveness (Tarí, Molina-Azorín, & Heras, 2012).

2.2 ISO 9001 in Higher Education

The application of ISO 9001 in higher education reflects the recognition that universities operate as complex service

organizations. Institutions must satisfy multiple stakeholders, including students, faculty members, government agencies, and accreditation bodies. ISO certification provides universities with a structured approach to managing academic and administrative processes.

Research suggests that the adoption of ISO standards in higher education contributes to improved institutional governance, standardized procedures, and enhanced quality assurance practices (Sallis, 2014). Furthermore, the implementation of ISO frameworks promotes transparency and accountability in university management, supporting the development of a culture of continuous improvement.

However, some scholars argue that the rigid structure of standardized systems may create bureaucratic challenges if not implemented flexibly. Therefore, effective ISO implementation in higher education requires strong leadership support and active participation from institutional stakeholders.

2.3 Management Commitment

Management commitment plays a critical role in the successful implementation of quality management systems. Organizational leaders are responsible for establishing quality objectives, allocating resources, and promoting a culture of continuous improvement within the institution.

Oakland (2014) emphasizes that leadership involvement is essential for sustaining quality initiatives and ensuring organizational alignment with quality standards. In higher education institutions, visible leadership support strengthens employee engagement and reinforces the legitimacy of quality management programs.

Empirical studies indicate that strong management commitment encourages staff participation in quality initiatives and enhances institutional readiness for organizational change.

2.4 Workplace Environment

The workplace environment significantly influences employee performance and organizational effectiveness. A supportive environment characterized by adequate infrastructure, technological resources, and safe working conditions facilitates the successful implementation of quality management systems.

Research suggests that resource availability and infrastructure support play a crucial role in sustaining quality management initiatives (Chandrasekhar, 2011). When employees are provided with appropriate facilities and operational resources, they are more capable of complying with standardized procedures and delivering consistent services.

2.5 Capacity Enhancement

Capacity enhancement refers to the development of employees' competencies through training, professional development programs, and knowledge-sharing initiatives. ISO 9001:2015 emphasizes the importance of ensuring that employees possess the necessary skills and knowledge required to perform their roles effectively.

According to Fitzsimmons and Fitzsimmons (2014), employee training and development are essential for improving organizational performance and service quality. In higher education institutions, capacity-building initiatives enhance employees' ability to implement quality procedures and contribute to institutional improvement.

2.6 Internal Communication

Internal communication is a key component of effective quality management systems. Communication facilitates the

dissemination of information regarding organizational policies, procedural updates, and improvement initiatives.

Effective communication systems support coordination among departments and ensure that employees understand their roles within the quality management framework. Lovelock and Wirtz (2016) highlight that transparent communication improves organizational cooperation and enhances service delivery outcomes.

3. Methodology

3.1 Research Design

This study employed a mixed-method research design combining quantitative and qualitative approaches to obtain a comprehensive assessment of ISO 9001:2015 implementation and the challenges encountered in a higher education institution.

3.2 Research Locale

The study was conducted in Laguna State Polytechnic University implementing the ISO 9001:2015 Quality Management System.

3.3 Respondents and Sampling Technique

The respondents consisted of 314 employees including teaching and non-teaching personnel. Stratified sampling was used to ensure representation across campuses and employment categories.

3.4 Research Instrument

The primary instrument used in this study was a structured questionnaire designed to measure the extent of implementation of the ISO 9001:2015 Quality Management System in the institution. The questionnaire consisted of two parts. The first part gathered demographic information from the respondents, including sex, employment status, and campus assignment. The second part measured the level of ISO implementation across four dimensions: management commitment, workplace environment, capacity enhancement, and internal communication.

The items were measured using a four-point Likert scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree). The questionnaire was adapted from existing studies related to quality management systems and ISO implementation and was reviewed by experts to ensure content validity. The complete survey questionnaire used in this study is presented in Appendix A.

3.5 Data Collection Procedure

Permission to conduct the study was obtained from university authorities before data collection. Questionnaires were distributed through official communication channels, and interviews were conducted with selected participants involved in quality assurance processes.

3.6 Data Analysis

Quantitative data were analyzed using descriptive and inferential statistics, while qualitative data were analyzed using thematic analysis to identify recurring patterns and themes.

3.7 Ethical Considerations

Participation in the study was voluntary. Respondents were informed about the purpose of the study and assured that their responses would remain confidential.

4. Results

This section presents the findings of the study regarding the extent of implementation of the ISO 9001:2015 Quality Management System in terms of management commitment, workplace environment, capacity enhancement, and internal communication. The results also examine whether significant differences exist in the perceived implementation of the quality management system when respondents are grouped according to selected demographic variables.

4.1 Overall Implementation of ISO 9001:2015

Table 1 presents the overall extent of implementation of the ISO 9001:2015 Quality Management System in the institution.

Table 1. Overall Extent of Implementation of ISO 9001:2015

Dimension	Mean	Interpretation
Management Commitment	3.60	Highly Implemented
Workplace Environment	3.52	Highly Implemented
Capacity Enhancement	3.55	Highly Implemented
Internal Communication	3.50	Highly Implemented
Overall Mean	3.54	Highly Implemented

Table 1 shows that ISO 9001:2015 is highly implemented across all identified dimensions. Among the four dimensions, management commitment obtained the highest mean score, indicating strong leadership support in implementing quality management practices. Capacity enhancement also received a high rating, suggesting that training and professional development activities contribute to employees' understanding of ISO procedures. The overall mean indicates that the quality management system is highly implemented within the institution.

4.2 Implementation by Quality Management Dimension

To better understand how ISO 9001:2015 is implemented in the institution, the results were analyzed according to the four key dimensions of quality management.

Table 2. Implementation of ISO 9001:2015 by Dimension

Dimension	Mean	Rank	Interpretation
Management Commitment	3.60	1	Highly Implemented
Capacity Enhancement	3.55	2	Highly Implemented
Workplace Environment	3.52	3	Highly Implemented
Internal Communication	3.50	4	Highly Implemented

As shown in Table 2, management commitment ranked first among the four dimensions, indicating that institutional leaders actively promote quality management practices and support ISO-related activities. Capacity enhancement ranked second, highlighting the importance of training programs and seminars in strengthening employees' competencies in implementing ISO procedures. Workplace environment and internal communication also received high ratings, suggesting that the institution provides adequate resources and communication channels to support quality management initiatives.

4.3 Differences in ISO Implementation by Respondent Profile

Inferential statistical analysis was conducted to determine whether significant differences exist in the extent of ISO 9001:2015 implementation when respondents are grouped according to selected demographic variables.

Table 3. Differences in ISO Implementation by Respondent Profile

Variable	Test Used	p-value	Interpretation
Sex	t-test	0.312	Not Significant
Employment Status	ANOVA	0.287	Not Significant
Campus Assignment	ANOVA	0.254	Not Significant

The results presented in Table 3 indicate that there are no significant differences in the perceived implementation of ISO 9001:2015 when respondents are grouped according to demographic variables. This suggests that the quality management system is implemented consistently across different employee groups and organizational units within the institution.

5. Discussion

The findings of this study indicate that the ISO 9001:2015 Quality Management System is highly implemented in the higher education institution examined. The results demonstrate that the university has successfully integrated quality management principles into its organizational practices, particularly in the areas of management commitment, workplace environment, capacity enhancement, and internal communication. These findings suggest that the institution maintains a strong organizational orientation toward quality assurance and continuous improvement.

The results reveal that management commitment obtained the highest rating among the four dimensions. This finding highlights the critical role of leadership in sustaining quality management systems. According to Oakland (2014), management commitment is essential in establishing organizational priorities and ensuring that quality objectives are integrated into institutional strategies. Strong leadership involvement encourages employees to actively participate in quality initiatives and promotes a culture of accountability within the organization.

Similarly, the high rating of capacity enhancement indicates that training programs and professional development activities contribute significantly to the effective implementation of ISO 9001:2015. Training initiatives enhance employees' competencies and improve their understanding of standardized procedures and quality policies. Fitzsimmons and Fitzsimmons (2014) emphasize that continuous training is essential for improving organizational performance and ensuring that employees are capable of implementing quality management practices effectively.

The findings also show that the workplace environment supports the implementation of ISO standards. Adequate infrastructure, access to documentation systems, and the availability of technological resources contribute to efficient service delivery and compliance with institutional procedures. This result supports the findings of Chandrasekhar (2011), who noted that a supportive workplace environment improves employee productivity and enhances organizational performance.

In terms of internal communication, the results indicate that communication systems within the institution are generally effective in disseminating quality-related information. Clear communication channels enable employees to understand institutional policies, procedural updates, and organizational objectives. Lovelock and Wirtz (2016) emphasized that effective communication plays a critical role in coordinating organizational activities and improving service delivery outcomes.

Another important finding of the study is the absence of significant differences in the perceived implementation of ISO 9001:2015 across demographic variables. This suggests that the quality management system is implemented consistently across different employee groups and organizational units within the institution. The consistency of implementation

indicates that quality management practices have become institutionalized and are not dependent on individual roles or departments.

Overall, the findings demonstrate that ISO 9001:2015 functions as an effective framework for strengthening institutional governance and improving operational practices in higher education institutions. However, continuous monitoring and improvement remain necessary to sustain the effectiveness of the quality management system.

6. Conclusion and Implications

This study examined the extent of implementation of the ISO 9001:2015 Quality Management System and the challenges encountered in a higher education institution. The findings revealed that ISO 9001:2015 is highly implemented across the dimensions of management commitment, workplace environment, capacity enhancement, and internal communication. These results indicate that the institution demonstrates strong adherence to quality management principles and international standards.

The high level of management commitment highlights the importance of leadership involvement in sustaining quality management initiatives. Institutional leaders play a critical role in promoting quality policies, allocating resources, and encouraging employee participation in quality improvement activities.

The findings also show that training and professional development programs contribute significantly to the successful implementation of ISO procedures. Continuous capacity enhancement ensures that employees possess the knowledge and competencies required to implement quality management systems effectively.

Furthermore, the results emphasize the importance of providing a supportive workplace environment and maintaining effective communication systems. Adequate infrastructure and clear communication channels facilitate the efficient implementation of institutional procedures and enhance organizational coordination.

Based on these findings, several practical implications can be drawn. University administrators should continue to strengthen leadership engagement in quality management initiatives to ensure the sustainability of ISO practices. Institutions should also expand training opportunities for employees to enhance their competencies in quality management implementation. Additionally, improving communication systems and ensuring equitable access to resources across organizational units can further strengthen institutional quality management systems.

In conclusion, ISO 9001:2015 serves as an effective framework for promoting organizational improvement and enhancing service quality in higher education institutions. Sustained leadership support, continuous training, and effective communication remain essential for maintaining the long-term success of quality management systems.

References

- Akinyele, S. T., 2007. A critical assessment of environmental impact on workers. *Nigeria Business Journal*, pp. 50–61.
- Ali, A. Y. S., Ali, A. A., Adan, A. A., 2013. Working conditions and employees' productivity in manufacturing companies in the Sub-Saharan African context: Case of Somalia. *Educational Research International*, pp. 67–78.
- Bounabri, N., El Oumri, A. A., Saad, E., Zerrouk, L., Ibnlfassi, A., 2018. Barriers to ISO 9001 implementation in Moroccan organizations: An empirical study. *Journal of Industrial Engineering and Management*, 11(1), pp. 34–56.
- Chandrasekhar, K., 2011. Workplace environment and its impact on organizational performance in public sector organizations. *International Journal of Enterprise Computing and Business Systems*, 1(1), pp. 1–20.
- Fitzsimmons, J. A., Fitzsimmons, M. J., 2014. *Service Management: Operations, Strategy, Information Technology*. 8th ed. New York: McGraw-Hill Education.
- Hoyle, D., 2017. *ISO 9001:2015 Quality Management Systems: A Practical Guide*. 3rd ed. London: Routledge.
- International Organization for Standardization, 2015. *ISO 9001:2015 Quality Management Systems — Requirements*. Geneva: ISO.
- Lovelock, C., Wirtz, J., 2016. *Services Marketing: People, Technology, Strategy*. 8th ed. Pearson Education.
- Oakland, J. S., 2014. *Total Quality Management and Operational Excellence*. 4th ed. London: Routledge.
- Sallis, E., 2014. *Total Quality Management in Education*. 3rd ed. London: Routledge.
- Tarí, J. J., Molina-Azorín, J. F., Heras, I., 2012. Benefits of the ISO 9001 and ISO 14001 standards: A literature review. *Journal of Industrial Engineering and Management*, 5(2), pp. 297–322.