



A CIPP-Based Evaluation of ISO 9001: 2015 Implementation and It's Impact on Higher Education

Johna Garin Belardo

Department of Secondary Education, College of Teacher Education, Benguet State University, Benguet, Philippines

Article Info

Article history:

Received June 24, 2026

Revised Jul 16, 2026

Accepted Aug 23, 2026

Online First Aug 27, 2026

Keywords:

CIPP

Evaluation

Higher Education

ISO 9001: 2015

ABSTRACT

Purpose of the study: Using the CIPP Evaluation Model the study evaluated the implementation of ISO 9001:2015 in the academic processes by examining the level of manifestation of quality management principles of the process owners and faculty awareness of ISO-related academic processes. The quality management principles were satisfactorily manifested ($M=4.07$), while faculty demonstrated a high level of awareness ($M=2.02$), indicating that ISO-related practices and academic processes are generally evident and understood within the institution.

Methodology: The study employed a quantitative descriptive design guided by the CIPP and Goal-Free Evaluation frameworks. A total of 281 faculty members from a state university in the Cordillera region participated in the study. Data were collected using validated researcher-made questionnaires. Quantitative data were analyzed using descriptive statistics. Ethical principles of informed consent, confidentiality, and voluntary participation were strictly observed.

Main Findings: The results demonstrate that ISO 9001:2015 implementation is stronger at the operational level than at the participatory or institution-wide level. Faculty members are highly aware of quality procedures that directly affect their teaching responsibilities, while awareness decreases as processes become more specialized, committee-based, or institution-wide. Similarly, the relatively lower and more variable manifestation of Engagement of People among process owners suggests that opportunities for personnel involvement may not be distributed uniformly. Thus, the findings point not to a weakness in ISO implementation itself, but to a potential gap in the breadth of participation and dissemination of quality knowledge.

Novelty/Originality of this study: While institutions regularly assess conformity with ISO requirements through internal and external audits, relatively little attention has been given to the lived experiences of faculty members who interact with the system daily. Specifically, there remains a need to examine how ISO 9001:2015 principles are manifested in academic processes and the extent to which faculty members are aware of these processes.

This is an open access article under the [CC BY](https://creativecommons.org/licenses/by/4.0/) license



Corresponding Author:

Johna Garin Belardo

Department of Secondary Education, College of Teacher Education, Benguet State University, La Trinidad, Benguet 2601 Philippines

Email: j.belardo@bsu.edu.ph

1. INTRODUCTION

Quality management has become an important concern in higher education as institutions strive to improve educational outcomes, accountability, stakeholder satisfaction, and the quality of academic and support services [1]-[2]. In response to increasing demands for institutional effectiveness and continuous improvement, many Higher Education Institutions (HEIs) have adopted Quality Management Systems (QMS), including ISO 9001:2015, as a structured approach to managing organizational processes and improving service delivery. ISO

9001:2015 emphasizes process management, customer focus, leadership, engagement of people, evidence-based decision-making, relationship management, and continuous improvement. In higher education, these principles may be applied to various academic processes, including instruction, assessment, curriculum development, student services, and graduation [3]-[5]. However, the effectiveness of an ISO-based QMS cannot be determined solely by the presence of documented procedures or successful certification; it also depends on how the system is understood, implemented, and experienced by the people responsible for carrying out academic processes.

In the Philippine higher education context, quality assurance is supported by the policies and standards of the Commission on Higher Education (CHED). Republic Act No. 7722, or the Higher Education Act of 1994, mandates CHED to formulate policies, standards, and guidelines that promote quality higher education [6]-[8]. Consistent with this mandate, CHED Memorandum Order No. 46, s. 2012 emphasizes outcomes-based and typology-based quality assurance, institutional assessment, and continuous quality improvement. ISO 9001:2015 may complement these national quality assurance efforts by providing institutions with a systematic approach to documenting, monitoring, evaluating, and improving academic and support processes.

Although ISO 9001:2015 has been increasingly adopted in higher education, existing studies have largely focused on certification, compliance, institutional performance, and quality assurance mechanisms [9]. Comparatively less attention has been given to faculty members as frontline implementers of ISO-related academic processes. Faculty members are directly involved in instruction, assessment, curriculum-related activities, documentation, and other academic functions covered by the QMS. Their awareness, engagement, and experiences are therefore important in determining how ISO requirements are translated into actual academic practice.

This gap is particularly relevant in the Philippine higher education context, where ISO-based quality management operates alongside CHED policies, program standards, and institutional quality assurance mechanisms [10]. Limited studies have examined how ISO 9001:2015 principles are manifested in day-to-day academic processes and how aware faculty members are of these processes. Understanding their experiences may also reveal whether ISO implementation contributes to meaningful quality improvement or is perceived primarily as an administrative and compliance requirement.

Thus, this study evaluates the implementation of ISO 9001:2015 in academic processes by examining the a) level of manifestation of quality management principles among process owners and b) level of faculty awareness of academic processes. Additionally, it seeks to identify solutions to bridge the gap between the level of manifestation and level of awareness of the participants' experiences with ISO implementation.

2. RESEARCH METHOD

2.1 Research Design

This study employed a quantitative descriptive research design to evaluate the implementation of ISO 9001:2015 in academic processes. It specifically measured the level of manifestation of ISO 9001:2015 quality management principles among process owners and the extent of faculty awareness of ISO-related academic procedures within the institution [11], [12]. The evaluation was guided by the CIPP Evaluation model, which provided a framework for examining the relevant contextual, input, process, and product dimensions of ISO implementation [13]. Goal-Free Evaluation (GFE) was also employed to assess the actual effects and outcomes of ISO implementation without being limited to predetermined program objectives.

2.2 Evaluation Framework

The study was guided by the Context, Input, Process, and Product (CIPP) Evaluation Model and complemented by Goal-Free Evaluation (GFE). The CIPP model provided a structured assessment of the implementation environment, resources, processes, and outcomes, while GFE identified actual and unintended effects of ISO 9001:2015 implementation. Together, these frameworks enabled a comprehensive evaluation of both intended results and stakeholder experiences.

2.3 Population and Participants

The study was conducted in a state university in the Cordillera Administrative Region with an established ISO 9001:2015-certified Quality Management System. Total enumeration was employed, wherein all 379 faculty members were invited to participate. The faculty members were considered appropriate respondents because they are directly involved in implementing and carrying out ISO-related academic processes within the institution.

2.4 Research Instruments and Validation

Data were collected using two researcher-made questionnaires and a semi-structured interview guide. The questionnaires measured the manifestation of ISO 9001:2015 quality management principles among process owners and the level of faculty awareness of academic processes. For the assessment of the manifestation of ISO principles, process owners rated statements describing how their respective offices applied the principles in their academic processes. Sample indicators included, "Does your office manifest an understanding of the evolving

needs of its customers?” and “Does your office addresses the expectations of its stakeholders in relation to academic processes.” For faculty awareness, respondents reviewed indicators describing specific academic processes and rated their level of awareness using a five-point scale: fully aware, aware, moderately aware, slightly aware, and not aware. Sample indicators included “The Department Performance Commitment and Review (DPCR) of your department” and “The instructional materials (IM) or textbook preparation process.” The content validity of the two questionnaires was established through expert review using Aiken’s V, which yielded coefficients of 0.97 and 0.99, respectively. Reliability testing further yielded Cronbach’s alpha coefficients of 0.96 and 0.97, respectively, indicating excellent internal consistency and supporting the validity and reliability of the instruments [14].

2.5 Data Collection Procedure

Following institutional approval, data were gathered through online and paper-based questionnaires and supplemented by semi-structured interviews. The instruments were refined based on expert recommendations and pilot-testing results before full-scale administration. The questionnaires were distributed to the identified respondents, who were provided with clear instructions regarding the purpose of the study, the rating procedures, and the confidentiality of their responses. Both online and paper-based administration were employed to accommodate the accessibility and availability of the respondents. Participation was voluntary, and appropriate measures were observed to protect the privacy, confidentiality, and anonymity of the participants throughout the data collection process [15].

2.6 Data Analysis

Quantitative data were analyzed using descriptive statistics, specifically the mean and standard deviation, to determine the level of manifestation of ISO 9001:2015 quality management principles among process owners and the level of faculty awareness of academic processes. The mean was used to determine the overall level of manifestation and awareness for each indicator and dimension, while the standard deviation was used to describe the variability or consistency of the respondents’ ratings. The computed means were interpreted using the predetermined rating scales for manifestation and awareness, with corresponding descriptive interpretations assigned to each range. The results were then summarized and compared across the identified ISO 9001:2015 principles and academic processes to determine areas of stronger and weaker implementation and awareness. The quantitative results were subsequently examined in relation to the CIPP evaluation dimensions and the goal-free evaluation perspective, allowing the study to assess both the observed implementation of ISO 9001:2015 and its actual effects, including intended and unintended outcomes.

3. RESULTS AND DISCUSSION

Table 1. Current Level of Manifestation of ISO 9001:2025 Among Process Owners

Principles	Mean	Standard Deviation	Descriptive Equivalent
Customer Focus	4.03	0.59	Satisfactorily Manifested
Leadership	4.07	0.59	Satisfactorily Manifested
Engagement of People	4.02	0.61	Satisfactorily Manifested
Process Approach	4.10	0.63	Satisfactorily Manifested
Improvement	4.12	0.54	Satisfactorily Manifested
Evidence-based decision making	4.08	0.58	Satisfactorily Manifested
Relationship Management	4.07	0.64	Satisfactorily Manifested

Legend: 4.21 – 5.00 = Highly Manifested, 3.41 – 4.20 = Satisfactorily Manifested, 2.61 – 3.40 Manifested, 1.81– 2.60 = Partially Manifested, 1.0 - 1.80 = Not Demonstrated

Table 1 presents the level of manifestation of ISO 9001:2015 quality management principles among process owners. The results show an overall mean of 4.07, interpreted as satisfactorily manifested, indicating that quality management practices are generally evident and practiced across the organization.

Among the seven principles, improvement obtained the highest mean (4.12), followed by process approach (4.10) and evidence-based decision-making (4.08). The relatively low standard deviations indicate that these practices were consistently manifested across different units. These findings suggest that the institution effectively integrated continuous improvement and systematic process management into its academic operations. The high rating for evidence-based decision-making further indicates that decisions are generally guided by documented information and available evidence rather than by individual judgment alone. Similarly, the strong manifestation of the process approach suggests that academic activities are carried out through defined and

organized procedures. Taken together, the findings indicate that the implementation of the ISO 9001:2015 QMS is reflected in strong process-oriented and improvement-focused practices within the institution.

In contrast, engagement of people obtained a lower mean (4.02), although it remained within the satisfactory range, and demonstrated relatively greater variability, particularly in the area of staff delegation. This finding suggests that while the institution has established systematic and improvement-oriented processes, the involvement and participation of employees are not practiced with the same level of consistency across all units. The difference between the strong manifestation of process-oriented principles and the greater variability in people-related practices may indicate that ISO implementation is more firmly embedded in formal systems and procedures than in participatory practices. This highlights the need to further strengthen employee involvement, delegation, and shared responsibility to ensure that quality management is not only process-driven but also people-centered. These results imply that ISO process are implemented top-down, with administrators and process owners demonstrating strong compliance. Which can also mean that faculty members may be following procedures without understanding their purpose or contribution to quality assurance.

The indicators under Process Approach, Improvement, and Evidence-Based Decision Making suggest that process owners operate within a structured quality environment. Respondents demonstrated awareness of academic processes as interconnected systems, supported the smooth progression of admission, instruction, and graduation processes, and regularly communicated updated procedures. Similarly, quality enhancement initiatives were integrated into organizational practices through the use of stakeholder feedback, strategic improvements, and performance indicators. Process owners also reported using key performance indicators and performance reviews as bases for decision-making. These findings indicate that the technical requirements of ISO 9001:2015 have been successfully institutionalized and consistently practiced across units.

While technical systems were strongly manifested, the indicators under Engagement of People, Leadership, Customer Focus, and Relationship Management reveal greater variation in human-centered aspects of implementation. Although respondents acknowledged leadership support, stakeholder feedback mechanisms, and collaborative relationships, the indicators related to staff engagement, delegation, and participation showed less consistency across units. Faculty involvement in developing and implementing quality assurance processes appeared to vary depending on organizational context and leadership practices.

These findings also provide a basis for evaluating quality policies at both the national and institutional levels. At the national level, the results may inform the continuing development and refinement of CHED quality assurance policies and standards by highlighting the importance of mechanisms that promote meaningful faculty participation, shared responsibility, and employee engagement in quality systems. At the institutional level, the findings may guide the enhancement of policies and practices related to faculty consultation, delegation, participation in quality improvement activities, and shared decision-making. Thus, quality management policies may need to move beyond compliance with documented procedures toward creating conditions that enable faculty members and other employees to actively contribute to the continuous improvement of academic processes.

From the perspective of CIPP Context Evaluation, the findings describe the conditions within which the Quality Management System operates. The overall satisfactory manifestation of ISO 9001:2015 principles indicates that the organization functions within a structured and quality-oriented environment where established procedures, systems, and expectations guide process owners. However, the observed variability in engagement of people, particularly in delegation, indicates that the organizational context is not uniformly experienced, with some units providing more opportunities for participation and involvement than others.

Complementing this, the Goal-Free Evaluation (GFE) lens provides insight into how these conditions are actually manifested in practice. The data shows that structured and technical practices are consistently enacted, as reflected in the strong and uniform performance in improvement, evidence-based decision making, and process approach. These patterns suggest that activities related to monitoring, evaluation, and process control are embedded in routine operations. At the same time, GFE highlights observable variation in human engagement, particularly in how employees are involved in processes, confirming that participation and delegation are inconsistently experienced across units.

Taken together, the CIPP and GFE perspectives are mutually reinforcing. The CIPP context analysis explains the presence of a structured but unevenly experienced quality environment, while the GFE analysis confirms how this environment translates into consistent technical practices alongside variable human engagement in actual operations. Both perspectives point to the same conclusion: the institution has established a stable and systematic quality management environment, but variations remain in the extent to which personnel are engaged in its implementation.

These findings are consistent with Quality Management Theory and the Process Approach embedded in ISO 9001:2015. The process approach emphasizes managing activities as interconnected processes supported by the Plan-Do-Check-Act (PDCA) cycle to achieve consistent outcomes [16]. The strong manifestation of improvement confirms that continuous refinement of processes is actively practiced, which is essential for sustaining QMS effectiveness. Similarly, the high rating in evidence-based decision making indicates reliance on data and performance indicators, which enhances process control and reduces variability [17].

These results align with a study, who found that organizations implementing ISO 9001:2015 demonstrate improved performance when decision-making is grounded in measurable evidence [18]. The low variability observed in these principles further suggests a level of process standardization, which supports consistent operations. Moreover, the findings are supported by a study, who emphasize that structured improvement and data-driven systems contribute to process efficiency and organizational alignment [19]. This indicates that the organization has effectively embedded the technical components of the QMS [20]. However, the variability in engagement of people highlights a commonly reported challenge in quality management implementation. Studies indicate that while organizations may successfully implement technical aspects of ISO 9001, human engagement and organizational culture often remain inconsistent [4], [21]. This is significant because, within the process approach, effective implementation depends not only on process design but also on the competence, involvement, and accountability of personnel [22], [23]. Inconsistent delegation practices may lead to uneven process execution, weakening system integration. Furthermore, successful ISO 9001:2015 implementation requires balancing technical systems with people engagement. The present findings reflect this imbalance, where procedural aspects are consistently practiced while human-centered practices vary across units [16].

Table 2. Level of Awareness Among Faculty on ISO 9001:2015 Academic Processes

Academic Process	Mean	Standard Deviation	Descriptive Equivalent
General Policy	4.09	0.71	Aware
Syllabus Preparation	4.41	0.66	Fully Aware
Workload Preparation	4.22	0.70	Fully Aware
Mentoring/Instruction	4.49	0.61	Fully Aware
Curriculum Development	3.65	0.87	Aware
Instructional Material Preparation	3.60	0.66	Aware
Evaluation, Endorsement, and Approval of Graduating Students	3.80	1.01	Aware

Legend: 4.21 – 5.00 = Fully aware, 3.41 – 4.20 = Aware, 2.61 – 3.40 = Moderately Aware, 1.81 – 2.60 = Slightly Aware, 1.0 – 1.80 = Not Aware

Table 2 presents the level of awareness among faculty regarding ISO 9001:2015 academic processes. The results indicate that faculty demonstrate a generally high level of awareness, with all processes falling within the aware to fully aware categories. The highest levels of awareness were recorded in mentoring/instruction ($M = 4.49$), syllabus preparation ($M = 4.41$), and workload preparation ($M = 4.22$), all interpreted as fully aware. These areas also exhibited relatively low standard deviations, indicating that awareness of instruction-related processes is both high and consistently shared across faculty members. In contrast, general policy ($M = 4.09$), curriculum development ($M = 3.65$), instructional material preparation ($M = 3.60$), and evaluation, endorsement, and approval of graduating students ($M = 3.80$) were rated as aware, but at comparatively lower levels. Notably, evaluation-related processes showed the highest variability ($SD = 1.01$), suggesting differences in faculty awareness or involvement in these areas.

Generally, the results reveal a pattern where awareness is strongest in routine instructional functions and less consistent in processes requiring broader institutional coordination and involvement. Faculty members demonstrated the strongest awareness in processes that are closely aligned with their day-to-day instructional responsibilities. These include syllabus preparation, workload preparation, and mentoring/instruction. The indicators show that faculty are highly familiar with preparing syllabi and TOS, managing teaching loads, conducting classroom instruction, administering assessments, computing grades, providing feedback, and complying with classroom evaluation requirements [24]. Conversely, the comparatively lower mean and higher standard deviation in curriculum development and student graduation endorsement suggest that faculty engagement with these broader institutional systems is less uniform [25], [26].

In contrast, awareness was comparatively lower in curriculum development, instructional material preparation, general quality policies, and the evaluation and approval of graduating students. The indicators show that these processes involve activities such as curriculum enhancement planning, instructional material development, anti-plagiarism review, readability testing, policy implementation, and graduation approval procedures. Because these functions are often assigned to selected committees, academic leaders, or designated personnel, opportunities for direct participation among regular faculty members may be limited. There is a need to increase awareness among the faculty members. This may mean establishing cascading or peer-based knowledge sharing where faculty members who serve on curriculum, instructional materials, quality assurance, or graduation committees can conduct brief knowledge-sharing sessions within their departments after participating in these activities. It can also mean strengthen faculty involvement in policy development and review like providing mechanisms for faculty consultation and feedback when academic policies, curricula, instructional materials, and quality procedures are developed or revised.

From the perspective of CIPP Context Evaluation, the findings describe the academic environment in which ISO 9001:2015 processes are implemented. The overall high level of awareness indicates that the institution operates within a quality-oriented context where ISO-related academic procedures are generally recognized and supported. The strong and consistent awareness in instructional processes suggests that the organizational context reinforces activities directly linked to teaching responsibilities. However, the relatively lower and more variable awareness in curriculum development and evaluation processes indicates that the context does not uniformly expose or engage faculty in all academic quality processes. This suggests that awareness is shaped by role specialization and varying levels of participation across units, reflecting differences in how academic responsibilities are distributed.

Consistent with this, the Goal-Free Evaluation (GFE) lens highlights the actual patterns emerging from faculty experiences. The results show that awareness is consistently high in routine, teaching-related activities, confirming that these processes are embedded in daily practice. In contrast, GFE reveals observable variation in awareness of institutional and evaluative processes, particularly those requiring coordination beyond the classroom. This indicates that faculty members experience differing levels of familiarity depending on their roles and degree of involvement.

Looking at the two lenses, the CIPP context explains the presence of a structured academic environment that prioritizes instructional processes while offering uneven exposure to system-level functions, while the GFE analysis confirms how this context is reflected in consistent awareness of teaching processes and variable awareness of broader academic responsibilities. The findings are consistent with Quality Management Theory and the Process Approach in ISO 9001:2015, which emphasize that effective implementation depends on both process familiarity and consistent engagement in activities. The high awareness in instructional processes supports the idea that frequent exposure and routine performance enhance process understanding, as these tasks are embedded in faculty roles and repeatedly enacted.

This pattern is supported by existing studies. Kamusoko found that internal quality assurance is often perceived by faculty as an additional form of bureaucracy and is often regarded as a form of managerialism, resulting in IQA not being accepted as an integral component of institutional development [4]. Similarly, Tavares [27] observed that academics' perceptions of internal quality assurance significantly affect teaching and learning practices, indicating that faculty frequently view quality management systems as documentation-driven rather than as tools for improving teaching practice.

The variability in awareness, particularly in student evaluation processes, also aligns with Sabban and Rahman [28], who noted that awareness of institutional quality standards may be high at a general level but uneven in deeper operational integration, as perspectives from alumni and academic staff reveal significant variation in how quality assurance impacts are experienced across institutional functions. Furthermore, Iqbal et. al [29] highlight that differences in faculty roles and responsibilities significantly influence participation in quality-related processes. Addressing this gap requires aligning quality assurance practices with faculty roles and experiences. As noted by Srikanthan and Dalrymple [30], quality systems must be reconceptualized to support academic work rather than constrain it, offering alternative perspectives that move beyond purely procedural compliance. Likewise, Zara [31] emphasizes the importance of fostering shared ownership and recognition of faculty contributions to quality initiatives, noting that faculty cultural values, beliefs, and norms influence their perception of quality assurance and their willingness to participate in quality enhancement activities.

When the two lenses are interpreted together, they reveal an important pattern: ISO 9001:2015 is strongly embedded in the faculty members' immediate instructional work, but its broader institutional dimensions are less consistently shared and understood. This is particularly meaningful because the lower score for Engagement of People among process owners corresponds conceptually with the lower faculty awareness of processes that require participation beyond an individual's routine teaching responsibilities. The findings suggest a "strong operational implementation but uneven institutional participation" pattern. Among process owners, Engagement of People obtained the lowest mean score, although it remained within the satisfactory level. The relatively higher variability, particularly in staff delegation, indicates that although process owners generally recognize and implement ISO principles, the distribution of responsibility and involvement of personnel is not equally experienced across the organization. In other words, ISO practices may be well established at the process-owner level, but opportunities for broader participation may vary depending on the task, role, or designation of personnel.

In the level of faculty awareness results, faculty members demonstrated the highest awareness of processes directly connected to their day-to-day instructional responsibilities, such as syllabus preparation, workload preparation, classroom instruction, assessment, grading, feedback, and classroom evaluation. These are processes in which faculty members have direct responsibility, frequent exposure, and immediate practical involvement. Their high awareness is therefore consistent with the principle that people tend to become more knowledgeable about quality processes when they regularly perform and experience them.

In contrast, awareness was lower for curriculum development, instructional material preparation, general quality policies, and the evaluation and approval of graduating students. These processes are broader, more specialized, and frequently handled by committees, academic leaders, or designated personnel. Consequently,

regular faculty members may encounter these processes only occasionally or indirectly. The lower awareness therefore does not necessarily indicate resistance to ISO 9001:2015; rather, it may reflect limited opportunities for participation and exposure.

The findings indicate that faculty demonstrate strong and consistent awareness of instructional processes, reflecting the effective integration of quality management principles in teaching-related activities. However, variation in awareness of institutional and evaluative processes suggests uneven engagement in broader academic functions. This pattern highlights the coexistence of well-established process familiarity in routine tasks and limited exposure to system-level processes, emphasizing the need to strengthen the integration of quality management across all dimensions of academic practice [7]. To bridge this divide, universities must transition from accountability-driven models that prioritize external compliance to participatory frameworks that foster substantive institutional enhancement [32]-[34].

The I3A Framework

*Institutional Integration and Awareness Alignment Framework
for ISO 9001:2015 Implementation in Higher Education*

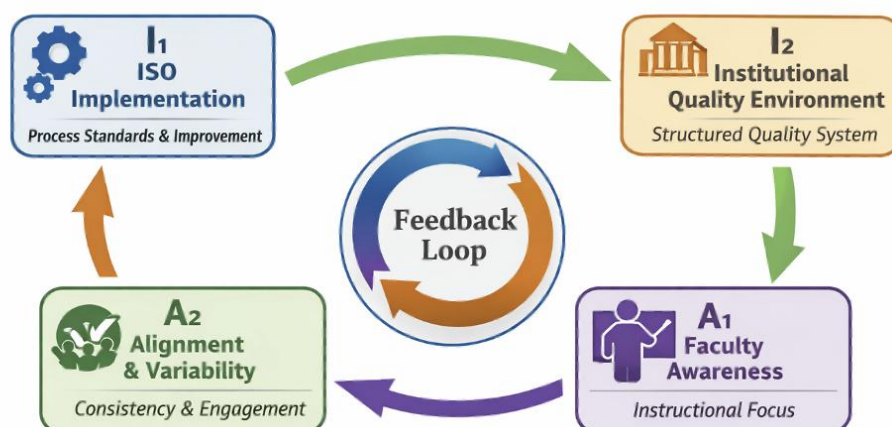


Figure 1. The Institutional Integration and Awareness Alignment (I3A) Framework Which Illustrates How ISO 9001:2015 Operates Within the Institution by Linking Implementation, Institutional Context, Faculty Awareness, and Alignment

The results demonstrate that ISO 9001:2015 implementation is stronger at the operational level than at the participatory or institution-wide level. Faculty members are highly aware of quality procedures that directly affect their teaching responsibilities, while awareness decreases as processes become more specialized, committee-based, or institution-wide. Similarly, the relatively lower and more variable manifestation of Engagement of People among process owners suggests that opportunities for personnel involvement may not be distributed uniformly. Thus, the findings point not to a weakness in ISO implementation itself, but to a potential gap in the breadth of participation and dissemination of quality knowledge.

Figure 1 present the Institutional Integration and Awareness Alignment (I3A) Framework which illustrates how ISO 9001:2015 operates within the institution by linking implementation, institutional context, faculty awareness, and alignment [35]-[37]. The framework is grounded in the study's findings, which show strong manifestation of technical ISO principles alongside variability in human engagement and awareness [38], [39]. The first component, ISO Implementation (I₁), reflects the consistent application of process-oriented principles such as improvement, evidence-based decision making, and the process approach [40], [41]. These results indicate that the institution has effectively embedded the technical requirements of the Quality Management System, establishing standardized procedures and mechanisms for continuous improvement [42]-[44]. This implementation shapes the Institutional Quality Environment (I₂), characterized by a structured and quality-oriented system. However, the study also revealed uneven experiences across units, particularly in engagement and delegation. The CIPP Context lens explains this as a function of differing opportunities for participation within the organizational setting [45].

The third component, Faculty Awareness (A₁), captures how academic staff understand and engage with ISO-related academic processes. Awareness was highest in routine instructional tasks but lower in system-level functions such as curriculum development and graduation evaluation. This pattern reflects role specialization and varying levels of exposure to institutional processes [46]. The final component, Alignment and Variability (A₂), represents the resulting consistency in technical practices and variability in human-centered practices. While procedural compliance is strong, differences in engagement and awareness limit full integration of quality management principles across academic functions [42]. A feedback loop connects these components, emphasizing

that implementation strengthens institutional structures, which shape awareness and engagement; in turn, variability in awareness influences the sustainability of ISO practices. This cyclical relationship highlights the need for continuous capacity-building and shared ownership to harmonize technical and human dimensions of quality assurance [47]. Overall, the I3A Framework presents ISO 9001:2015 implementation as a dynamic system in which institutional structures, faculty awareness, and engagement interact to sustain a culture of quality and support academic effectiveness. The framework further suggests that sustained ISO implementation requires more than consistent application of standardized procedures; it requires the continuous alignment of institutional systems with faculty knowledge, participation and shared responsibility. Accordingly, capacity-building, cascading knowledge sharing, participatory policy development, clearer delegation of responsibilities, and continuous feedback mechanisms are proposed to reduce variability in awareness and engagement and strengthen the institutional integration of quality management practices.

4. CONCLUSIONS

Based on the findings, ISO 9001:2015 is substantially integrated into the institution's academic processes, as shown by the satisfactory manifestation of all seven quality management principles among process owners, indicating an established system that supports effectiveness and continuous improvement. Faculty awareness of ISO processes varies depending on their level of involvement, with higher awareness observed in instructional tasks and lower awareness in broader institutional functions such as curriculum development, policy implementation, and graduation-related procedures, suggesting uneven distribution of understanding. To address this, the institution should sustain and strengthen quality management practices through continuous professional development, benchmarking, and structured sharing of best practices across units, while also ensuring regular monitoring and review of ISO implementation. In addition, a comprehensive awareness and orientation program should be implemented to improve understanding of less familiar processes, complemented by continuous training and mentoring initiatives that emphasize not only compliance but also the purpose and benefits of the quality management system to promote deeper faculty engagement.

ACKNOWLEDGEMENTS

The author extends her gratitude to her all those who participated, prayed, and pushed her to finish this research. Special thank to the Benguet State University for given her the avenue to conduct this research.

REFERENCES

- [1] S. Aziz, M. Mahmood, and Z. Rehman, "Implementation of CIPP model for quality evaluation at school level: A case study," *Journal of Education and Educational Development*, vol. 5, no. 1, p. 189, May 2018, doi: 10.22555/joed.v5i1.1553.
- [2] K. S. S. A. Jardani, "Faculty perceptions on the effectiveness of the internal quality process and its role on the teaching and learning," *International Journal of Higher Education*, vol. 12, no. 4, p. 15, Jul. 2023, doi: 10.5430/ijhe.v12n4p15.
- [3] D. Xolmurodova, "Quality assurance in higher education: International approaches and best practices," Zenodo, CERN European Organization for Nuclear Research, Mar. 2026, doi: 10.5281/zenodo.19249874.
- [4] R. Kamusoko, "Critical analysis of the applicability of the ISO 9001 standard in higher education institutions," *International Journal of African Higher Education*, vol. 6, no. 1, pp. 97–120, Jan. 2020, doi: 10.6017/ijahe.v6i1.10671.
- [5] T. Ardianti and I. Ramdani, "Evaluating the effectiveness and applicability of ISO 21001:2018 for quality assurance in higher education," *International Journal of Management Innovation and Education*, vol. 3, no. 2, pp. 32–37, Oct. 2024, doi: 10.33751/ijmie.v3i2.12742.
- [6] Commission on Higher Education, *Policy-Standard to Enhance Quality Assurance (QA) in Philippine Higher Education Through an Outcomes-Based and Typology-Based QA*, CHED Memorandum Order No. 46, s. 2012. Commission on Higher Education, 2012.
- [7] Commission on Higher Education, *Policy on Quality and Quality Assurance for Philippine Higher Education Institutions*, CHED Memorandum Order No. 17, s. 2022. Commission on Higher Education, 2022.
- [8] Commission on Higher Education, "Office of Institutional Quality Assurance and Governance (OIQAG)," Commission on Higher Education.
- [9] S. A. Basir, J. Davies, J. Douglas, and A. Douglas, "The influence of academic culture on quality management system ISO 9001 maintenance within Malaysian universities," *Journal of Higher Education Policy and Management*, vol. 39, no. 3, pp. 320–340, 2017, doi: 10.1080/1360080X.2017.1298199.
- [10] M. Brookes and N. Becket, "Quality management in higher education: A review of international issues and practice," Radar, Oxford Brookes University, Jan. 2007.
- [11] T. L. Thonhauser and D. Passmore, "ISO 9000 in education: A comparison between the United States and England," *Research in Comparative and International Education*, vol. 1, no. 2, pp. 156–173, May 2006, doi: 10.2304/rcie.2006.1.2.156.
- [12] X. Ge, I. A. Lubin, and K. Zhang, "An investigation of faculty's perceptions and experiences when transitioning to a new learning management system," *Knowledge Management & E-Learning: An International Journal*, pp. 433–447, Dec. 2010, doi: 10.34105/j.kmel.2010.02.031.

- [13] F. F. Balahadia, W. Dalugdog, and J. Cabiente, "Awareness and challenges of ISO 9001:2015 implementation in higher education," *International Journal of Academic and Industry Research*, vol. 3, no. 2, Jun. 2022, doi: 10.53378/352894.
- [14] T. L. Finney, "Confirmative evaluation: New CIPP evaluation model," *Journal of Modern Applied Statistical Methods*, vol. 18, no. 2, pp. 2–24, Dec. 2020, doi: 10.22237/jmasm/1598889893.
- [15] B. W. Youker, "What, how, and why? A comparative analysis of 12 goal-free evaluations," *Journal of MultiDisciplinary Evaluation*, vol. 15, no. 33, pp. 16–29, Dec. 2019, doi: 10.56645/jmde.v15i33.444.
- [16] D. A. Kifta, A. Ambiyar, F. Rizal, and S. Islami, "Evaluation of ISO 9001 lead auditor training program using CIPP model at ATS training centre," *Jurnal Pendidikan Teknologi Kejuruan*, vol. 5, no. 2, pp. 41–46, May 2022, doi: 10.24036/jptk.v5i2.27323.
- [17] P. P. Wulandari *et al.*, "Content validity of fun relay learning model and observation of cognitive, affective, psychomotor aspects of elementary school students," *International Journal of Human Movement and Sports Sciences*, vol. 11, no. 6, pp. 1277–1286, Oct. 2023, doi: 10.13189/saj.2023.110611.
- [18] N. Gunawardena, "Case study: Implementation of ISO 14000 environmental management system," in *Standardisation in Companies and Markets*, W. Hesser, H. de Vries, and A. Feilzer, Eds. Hamburg, Germany: Helmut Schmidt University, 2006, pp. 607–646.
- [19] S. Díaz *et al.*, "Assessing nature's contributions to people," *Science*, vol. 359, no. 6373, pp. 270–272, Jan. 2018, doi: 10.1126/science.aap8826.
- [20] J. J. Oschman, "A conceptual framework implementing an AS9100 quality management system for the aerospace industry," *The South African Journal of Industrial Engineering*, vol. 30, no. 2, Aug. 2019, doi: 10.7166/30-2-1930.
- [21] R. Wolniak, "Performance evaluation in ISO 9001:2015," *Scientific Papers of Silesian University of Technology Organization and Management Series*, vol. 2021, no. 151, pp. 725–734, Jan. 2021, doi: 10.29119/1641-3466.2021.151.50.
- [22] O. A. Popoola, H. E. Adama, C. D. Okeke, and A. E. Akinoso, "The strategic value of business analysts in enhancing organizational efficiency and operations," *International Journal of Management & Entrepreneurship Research*, vol. 6, no. 4, pp. 1288–1303, Apr. 2024, doi: 10.51594/ijmer.v6i4.1059.
- [23] C. Singh and K. K. Sareen, "Effectiveness of ISO 9000 standards in Indian educational institutions: A survey," *International Journal of Services Technology and Management*, vol. 7, no. 4, p. 403, Jan. 2006, doi: 10.1504/IJSTM.2006.011005.
- [24] A. M. Gamit, A. R. Santos, K. L. Armas, and M. N. Villegas, "Implementation of ISO 9001:2015 in state universities and colleges: A quality management, organizational performance, and legal framework," *Corporate Law & Governance Review*, vol. 6, no. 4, p. 94, Dec. 2024, doi: 10.22495/clgrv6i4p9.
- [25] K. S. Nyakala, T. T. Munyai, J. H. C. Pretorius, and A. Vermeulen, "Significant factors influencing quality assurance practices in small and medium-sized construction projects in South Africa," *Journal of Economics and Behavioral Studies*, vol. 11, no. 2, pp. 30–44, May 2019, doi: 10.22610/jebs.v11i2(j).2816.
- [26] E. Suárez, A. Calvo-Mora, and J. L. Roldán, "The role of strategic planning in excellence management systems," *European Journal of Operational Research*, vol. 248, no. 2, pp. 532–542, Aug. 2015, doi: 10.1016/j.ejor.2015.07.008.
- [27] O. Tavares, C. Sin, P. Videira, and A. Amaral, "Academics' perceptions of the impact of internal quality assurance on teaching and learning," *Assessment & Evaluation in Higher Education*, vol. 42, no. 8, pp. 1293–1305, Nov. 2016, doi: 10.1080/02602938.2016.1262326.
- [28] I. Sabban and I. H. A. Rahman, "Quality assurance and its impact from higher education institutions' perspectives," *Record and Library Journal*, vol. 8, no. 2, pp. 309–318, Dec. 2022, doi: 10.20473/rjl.v8-i2.2022.309-318.
- [29] S. Iqbal, C. A. B. Taib, N. A. Allumi, and M. Abbas, "Quality-driven education: Analyzing the effects of ISO 9001 quality management principles on university performance," *Journal of Cultural Analysis and Social Change*, vol. 10, no. 4, pp. 1146–1159, 2025, doi: 10.64753/jcasc.v10i4.2994.
- [30] G. Srikanthan and J. Dalrymple, "Developing alternative perspectives for quality in higher education," *International Journal of Educational Management*, vol. 17, no. 3, pp. 126–136, Apr. 2003, doi: 10.1108/09513540310467804.30.
- [31] C. G. Zara, "Perspectives on Batangas State University's direction toward sustainable culture of quality," *Frontiers in Education*, vol. 10, Art. no. 1479967, Sep. 2025, doi: 10.3389/feduc.2025.1479967.
- [32] F. Martin, K. Budhrani, and C. Wang, "Examining faculty perception of their readiness to teach online," *Online Learning*, vol. 23, no. 3, Sep. 2019, doi: 10.24059/olj.v23i3.1555.
- [33] R. Hariri, "'Let me enjoy teaching': Improving academic quality assurance practices to attain teaching excellence: Case study of selected private higher education institutions in the Kingdom of Saudi Arabia," *International Journal of Learning, Teaching and Educational Research*, vol. 20, no. 11, pp. 237–254, Nov. 2021, doi: 10.26803/ijlter.20.11.13.
- [34] A. Elhakim, "The effectiveness of using participatory evaluation in enhancing institutional performance: A case study from the United Arab Emirates," *Frontiers in Education*, vol. 10, Art. no. 1596743, Sep. 2025, doi: 10.3389/feduc.2025.1596743.
- [35] C. A. Taib, A. H. Mohammed, R. Iteng, and H. M. Lazim, "Framework of implementing ISO 9000 and total quality culture in higher education: A concept," *AIP Conference Proceedings*, vol. 2016, Art. no. 020139, 2018, doi: 10.1063/1.5055541.
- [36] B. Berger, "Employee/organizational communications," Institute for Public Relations, Nov. 17, 2008.
- [37] J. L. Walls and A. J. Hoffman, "Exceptional boards: Environmental experience and positive deviance from institutional norms," *Journal of Organizational Behavior*, vol. 34, no. 2, pp. 253–271, Jun. 2012, doi: 10.1002/job.1813.
- [38] J. Kleijnen, D. Dolmans, J. L. Willems, and H. van Hout, "Effective quality management requires a systematic approach and a flexible organisational culture: A qualitative study among academic staff," *Quality in Higher Education*, vol. 20, no. 1, pp. 103–126, Jan. 2014, doi: 10.1080/13538322.2014.889514.

- [39] J. A. Palaca, C. A. Gero, and N. Itaas-Prado, "Trainings, feedback, and automated workflow on the employees' effectiveness of quality assurance services," *International Journal of Research and Innovation in Social Science*, pp. 6689–6727, Sep. 2025, doi: 10.47772/ijriss.2025.903sedu0492.
- [40] J. Anttila and K. Jussila, "Understanding quality—conceptualization of the fundamental concepts of quality," *International Journal of Quality and Service Sciences*, vol. 9, nos. 3–4, pp. 251–268, 2017, doi: 10.1108/IJQSS-03-2017-0020.
- [41] J. R. Evans and W. M. Lindsay, *Managing for Quality and Performance Excellence*, 11th ed. Cengage, 2020.
- [42] L. Harvey and D. Green, "Defining quality," *Assessment & Evaluation in Higher Education*, vol. 18, no. 1, pp. 9–34, 1993, doi: 10.1080/0260293930180102.
- [43] J. M. Juran and A. B. Godfrey, Eds., *Juran's Quality Handbook*, 5th ed. New York, NY, USA: McGraw-Hill, 1999.
- [44] J. S. Oakland, *Total Quality Management and Operational Excellence: Text with Cases*, 4th ed. Abingdon, U.K.: Routledge, 2014.
- [45] E. Sallis, *Total Quality Management in Education*, 3rd ed. Abingdon, U.K.: Routledge, 2014.
- [46] C. M. Pastrana and J. R. Melo, "Implementation and impact of ISO 9001:2015 and ISO 21001:2018 in academic libraries across the CALABARZON region of the Philippines: A cross-sectional evaluation of quality management adoption, outcomes, and barriers," *Frontiers in Education*, vol. 11, Art. no. 1884974, Jul. 2026, doi: 10.3389/feduc.2026.1884974.
- [47] B. W. Youker and A. Ballard, "Goal-free evaluation: An orientation for foundations' evaluations—Updated 2024," *The Foundation Review*, vol. 16, no. 1, 2024, doi: 10.9707/1944-5660.1697.