From Papers to Practices: Embracing Challenges of ISO Certification

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ABSTRACT

As a mechanism to ensure quality education and services in the state colleges and universities in the Philippines, ISO certification entails embracing challenges and adopting strategies for the sustainable implementation of quality management systems, policies, and procedures. This descriptive study looked into the strategies employed, the challenges encountered and the changes observed by one state college during ISO certification. A total of 84 college officials, faculty members, and staff were requested to answer a questionnaire. Responses were validated through an interview among selected participants. Results revealed the respondents' positive perception towards ISO certification; the institution's employment of consultant, conducting seminars, trainings, internal audits, and management review, and implementation of ISO-aligned policies and procedures as strategies; conduct of orientations, dissemination of information, time management, provision of necessary resources and commitment of top management to address challenges on lack of awareness, resistance to change, conflict in schedule, insufficient knowledge on ISO standards and implementation of policies and procedures; and improvement in the school image, customer satisfaction, communication, and implementation of policies and procedures as observed changes. Hence, the respondents' perception, strategies, and actions to address the challenges helped the institution acquire and benefit from ISO certification.

Keywords — Social Science, ISO certification, descriptive design, Philippines

INTRODUCTION

Globalization has brought significant changes in the social and political affairs around the world. It leads to cultural understanding, economic collaboration, and standardization of products and processes (Gidley et al., 2010). Ongoing developments in the international arena of higher education include mobilization of students and teachers, aligning curricula to international standards, creating campuses in other countries, and establishing cooperation and mutual agreements with other education providers (Rosaroso et al., 2015). Consequently, as the primary producers of professionals, higher education institutions are expected to revisit their curricula and produce graduates that are prepared for the global market. These developments and demands increased in the requirement for quality in education, support to professionals, students' mobility, and response to the call of other stakeholders in the global arena (Ryan, 2015). The year 2018 can be considered revolutionary development for higher education institutions (HEIs) in the Philippines. From the usual day-to-day business of providing education and services to its clientele, the HEIs faced the increasing pressure of compliance to quality assurance mechanisms of the government. In addition to the existing compliance to the requirements of the Commission on Higher Education (CHED) for program assessment and of the Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACCUP), Inc. for program accreditation, HEIs have to acquire a certification from International Standardization for Organizations (ISO) for one of its core processes, a requirement set by the government through the Inter-Agency Task Force on the Harmonization of National Government Performance Monitoring, Information and Reporting Systems (Memorandum Circular No. 2018-1) for the grant of the performance-based bonus. As part of its monitoring system to ensure that government agencies, including state colleges and universities, provide quality services to their stakeholders (Li, 2010), the government required an ISO certification and used this as a basis of their performance (Marginson, 2009).

ISO certification guarantees that the quality of education and services provided by an institution are compliant with the requirements of the international market (Jung et al., 2013). Quality assurance in this aspect covers all the policies, processes, and actions that will maintain and sustain the quality of higher education (Campbell & Rozsnyai, 2002). With a focus on the quality of the products and services (Killen, 2000), ISO standards

ensure the implementation of processes that will develop the expected outputs. Consequently, acquiring an ISO certification provides concrete evidence that the institution is sincere in achieving its vision and mission (Laguador et al., 2014). It is an indication that the employees worked with commitment, competence, credibility, and collaboration. ISO certification increases customer satisfaction and working motivation of the faculty and staff and improves the public image of the institution (Gudo et al., 2011; Laguador et al., 2014). It is a declaration to the community that the institution is a better place to acquire higher education.

The journey to ISO certification passes through a long and difficult path. Issues on the commitment of the management, customer focus, and knowledge accumulation affect the implementation of the ISO standards in educational institutions (Cheng et al., 2004). In a study conducted by Sohail et al. (2003) in Malaysia, developing a quality management system in higher education institutions was challenged by the high turnover among department heads because of stress and the resistance to change of the key player in the organization. Implementation of a quality management system, on the other hand, was greatly affected by the culture of the institution, the leadership styles, communication, commitment of management, involvement of the employees and the reward system (Mohamed et al., 2015). In Turkey, obtaining ISO certification among universities was made difficult by several issues and challenges such as unwillingness and lack of staff motivation, costs - financial difficulties, personnel resistance to change, increased in workloads, lack of personnel, suspicion on the benefits of the quality certificate, shortage in physical infrastructure, systems incompatibility, dissemination and internalization of the system, and insufficient reports (Eryilmaz, Kara, Aydogan, Bektas & Erdur, 2016). Meanwhile, in the study conducted by Elgobbi (2014) in Libya, a university had difficulty in applying the requirements of the ISO 9001 standard to the operation of the institution, in establishing proper and comprehensive documentation of activities related to the implementation of the quality management system, and in preparing a complete guide to quality that could have helped the departments in preparing procedures necessary to achieve quality in services. In Lithuania, higher education institutions consider the expensive cost of certification as a factor that influences their decision to adopt ISO 9001. The higher the cost in implementation, certification, and maintenance of ISO 9001, the lower the likelihood that the institutions will adopt it, and vice versa (Kasperaviciute-Cerniauskiene & Serafinas, 2016). On the other hand, HEIs in Lebanon considered the commitment of top management as the most critical factor in obtaining ISO certification. This was followed by the confusion of the

institutions in complying with the accreditation and certification requirements, dedicating time and commitment to follow the standards, lack of awareness and resistance to change, and the availability of resources (Hussein et al., 2017). In the American continent, even the laboratories submitted by higher education institutions for accreditation and certification encountered challenges in financial resources, qualification, and commitment of personnel and institutional support (Grochau et al., 2018). Even in the Philippines, higher education institutions considered the expenses involved, demanding works in the documentation of established processes and procedures, and exhaustive document control customer feedbacking as challenges in ISO certification (Sisno, 2017). To address these challenges and prepare for ISO certification, the HEIs increased the level of awareness of their personnel by conducting regular meetings and management briefing on quality policy and objectives, creating a quality working environment, and creating a steering committee that was assigned to write the procedures and relevant support documents and provide trainings to respective employees. The management also appointed internal auditors who were assigned to check the implementation of the activities in the departments (Sohail et al., 2003). In Oman, one university applied and implemented stakeholder and market focus, staff development, measurement and analysis, and process management to ensure certification to ISO 9001 (Martin & Thawabeih, 2018).

Nevertheless, despite the challenges, stakeholders have a positive attitude toward ISO certification (Sisno, 2017) and consider it beneficial to higher education institutions (Andiva & Simatwa, 2018; Martin, 2018). In Malaysia, it resulted in a resolution of issues pertaining the departmental management, consistency in approach to the delivery of lectures, improving communication among program courses, systematic record traceability, and reducing overlapping duties, work overload, and work redundancy (Sohail et al., 2003). It also improved the overall effectiveness and performance of the institution in the products produced and services provided (Othman et al., 2017). In Turkey, ISO certification of higher education institutions provided standardization, prestige, publicity, and recognition of the faculty, increased service quality for all stakeholders, improved processes, increased awareness of the academic members in subjects such as training, surveying, assessment, considered feedback from students and staff, creating a sense of pride among academic/administrative staff, promote continuous improvement, ensured control and traceability, established planning for the future, and increased interest in the training of instructors (Eryilmaz, Kara, Aydogan, Bektas & Erdur, 2016). In Kenya, universities

benefited from increased satisfaction, morale, reduced operational costs, and increased efficiency. The quality management system has positively influenced teaching in universities through academic staff's service delivery, namely, courses allocation, course outlines, time tables, students lessons attendance, lecture notes, staff lesson attendance, and internship. This has helped universities to increase their credibility, visibility, and trust. Thus, there is marked improvement in teaching and learning standards, management processes and documentation, and fault prevention rather than correction (Andiva & Simatwa, 2018). The challenges and difficulties encountered by HEIs outweighed the benefits of obtaining ISO certification.

The benefits of implementing the quality management system are not in the certification itself but in the improvement of the processes and systems of the institution, which may result in an improved quality of education and services provided to the stakeholders (Quinn et al., 2009. Establishing documented information on the challenges and strategies implemented by higher education institutions will assist and guide other institutions in obtaining and maintaining ISO certification. As a quality assurance mechanism that assesses the quality and compliance to identify local and international quality standards (Sabio & Junio-Sabio, 2014), an institution has to revise, modify, adjust and change some of its existing policies, processes, and procedures to ensure compliance to ISO standards. The efforts of the institution and the people therein should not be wasted. The school has to implement the systems and processes and learn from the experiences of others to ensure sustainability and improvement in quality management. This way, passing surveillance and certification audits will be assured every year thereafter.

OBJECTIVES OF THE STUDY

This study aimed to find out how a higher education institution could maintain its certification by looking at the strategies employed and the challenges encountered during the preparation of one state college in the Philippines. Specifically, it sought to address the following objectives, (1) identify the perception of the respondents on the ISO certification of the state college, (2) determine the strategies employed by the institution in preparing for ISO certification, (3) find out challenges encountered by the respondents in preparing for ISO certification, (4) determine the respondents' actions address to the challenges to acquire ISO certification, and (5) discover the changes observed after being awarded ISO certification.

METHODOLOGY

This descriptive study was conducted in one state college in the Philippines. The respondents of this study were the campus directors, deans, internal auditors, document controllers, document custodians, faculty members, and staff of the institution. With their direct involvement in preparation for ISO certification, they were selected through purposive sampling. As the head of the operations of the campus, the campus director was involved in the implementation of policies and procedures and the monitoring of their campuses' compliance to ISO standards. The college deans, who were the persons directly involved in managing the offering of the academic programs, ensured that the delivery of education services was compliant with ISO standards. Likewise, the internal auditors, as the persons involved in conducting an internal quality audit, assess the compliance of the institution to these standards. In addition, the document controller and custodians, as the persons involved in controlling documents, records, and quality forms, monitor the implementation of the procedures relative to document controls and compliance with ISO standards. Moreover, as the persons directly involved in providing quality education and services, the faculty and staff experienced the need to align their activities and actions to the revised policies and procedures to ensure compliance with ISO standards. Table 1 presents the number of respondents included in this study.

Classification	Number
Campus Director	2
College Deans	3
Internal Auditors	6
Document Controller	1
Document Custodian	2
Faculty	40
Staff	30
Total	84

Table	1.	Res	pondents	of	the	study	v.

This study utilized a questionnaire in gathering data. The questionnaire was developed based on the related literature and the problems raised in this study and was subjected to validity and reliability tests. With a value of .970 Cronbach Alpha, the questionnaire was found reliable. This questionnaire was distributed

upon approval of the respective authorities. To validate their answers, an interview was conducted among selected participants. School records in the office of the Institutional Quality Assurance were also used in validating the answers of the respondents. Weighted mean was used to interpret the data gathered from the respondents. The following descriptions were used in interpreting the data:

Weight	Range	Verbal Interpretation
4	3.50 - 4.00	strongly agree
3	2.50 - 3.49	agree
2	1.50 - 2.49	disagree
1	1.00 - 1.49	strongly disagree

RESULTS AND DISCUSSION

Perception of the respondents on the ISO certification of one state college in the Philippines.

ISO certification disturbed the usual systems and processes in business and academic transactions of one state college in the Philippines. Everyone was required and expected to cooperate and participate in the preparation and implementation of the quality management system. Hence, the stakeholders had their own perceptions of its effect on the institution. Table 2 presents the perception of the respondents in this study. With an overall mean of 3.60, the respondents "strongly agree" on the effect of ISO certification in the state college. The findings reveal that the respondents have a positive perception of the ISO certification and consider it beneficial to the overall operations and status of the institution. Interview with selected respondents discloses their initial hesitation, but with the results of the changes implemented, they have come to realize its contribution to the improvement of the institution. These support the study of Sisno (2017) and Andiva and Simatwa (2018), where they found that despite the challenges, personnel of educational institutions develop a positive attitude and support ISO certification because of the benefits it has for the institution.

Table 2. Perception of the respondents of	on the ISO certification of one state
college in the Philippines.	

	Item	Mean	Interpretation
1. IS	O certification improves the public image of OMSC.	3.85	strongly agree
2. IS	O certification improves the processes of OMSC.	3.80	strongly agree
	aculty and staff are more aware of quality issues in OMSC ecause of ISO certification	3.58	strongly agree
4. IS	O certification is expensive.	3.55	strongly agree
	O certification has brought about excessive documentation ithout real benefits.	2.45	disagree
	O certification improves the quality of services provided to ientele.	3.79	strongly agree
7. IS	O certification improves team spirit.	3.71	strongly agree
8. IS	O certification resulted in clearer work procedures.	3.83	strongly agree
9. IS	O certification improves internal communication.	3.68	strongly agree
10. IS	O certification improves departmental cooperation.	3.62	strongly agree
	O certification increases the implementation of preventive stion.	3.68	strongly agree
	O certification improves monitoring and evaluation stems on the performance of all units and colleges.	3.75	strongly agree
13. IS	O certification improves customer satisfaction.	3.74	strongly agree
	hrough ISO certification, top management strongly acourages employees' involvement in the planning process.	3.74	strongly agree
15. IS by	O certification improves the quality of education provided y OMSC to the students.	3.71	strongly agree
	O certification ensures compliance of OMSC to statutory nd regulatory requirements.	3.80	strongly agree
со	hrough ISO certification, OMSC can demonstrate onformity to specified quality management system quirements.	3.79	strongly agree
	O certification is an additional burden to the faculty and aff.	2.40	disagree
19. IS	O certification fosters continual improvement in OMSC.	3.76	strongly agree
	O certification standardizes the ways things are done in MSC.	3.73	strongly agree
	Overall Mean	3.60	strongly agree

Legend:	3.50 - 4.00	strongly agree	2.50 – 3.49 agree
	1.50 - 2.49	disagree	1.00 - 1.49 strongly disagree

It implies that if ISO certification will provide an assurance that the policies, processes, and procedures that will be implemented in the HEIs are compliant with the international standards (Jung et al., 2013), and it will benefit the institution, the stakeholders will be satisfied and will support its implementation (Laguador et al., 2014). This is crucial in the sustainable implementation of the quality management system in any higher education institution. Hence, the conduct of an awareness program on the role and benefits of ISO certification among the personnel of HEIs is significant to the improvement of their attitude and support toward its implementation.

Strategies employed by the institution in preparing for ISO certification

Preparing for ISO certification requires an institution to consider the requirements to have complied. Table 3 shows the strategies employed by the state college in preparing for ISO certification. With an overall mean of 3.69, the respondents "strongly agree" with the strategies employed in the institution. The strategies implemented by the institution to be ISO certified confirms that the institution is aware of the requirements of international standards (Jung et al., 2013) and committed to achieving its vision and mission (Laguador et al., 2014). These strategies are comparable with the strategies employed by the HEIs in Malaysia (Sohail et al., 2003) and Oman in obtaining ISO certification (Martin and Thawabeih, 2018).

	Item	Mean	Interpretation
1.	Hired a consultant for the preparation	3.71	strongly agree
2.	Selected appropriate persons for the implementation of quality standards in the school	3.69	strongly agree
3.	Conducted seminar orientation on ISO 9001:2015	3.81	strongly agree
4.	Compared existing quality systems with ISO 9001:2015 requirements	3.68	strongly agree
5.	Evaluated systems and processes	3.75	strongly agree
6.	Implemented a quality policy that is appropriate for OMSC	3.83	strongly agree
7.	Conducted training on internal audit	3.85	strongly agree
8.	Conducted regular internal audit	3.70	strongly agree
9.	Conducted training on management review	3.67	strongly agree
10.	Monitored Report of non-conformities	3.63	strongly agree

Table 3. Strategies employed by the institution in preparing for ISO certification.

11.	Conducted regular m certification	neetings to provi	de updates on	3.68	strongly agree
12.	Implemented control o	f documents and 1	records	3.67	strongly agree
13.	Conducted an analysis environment	of the current inter	rnal and external	3.65	strongly agree
14.	Collected customer an quality management	nd supplier feedb	ack on current	3.61	strongly agree
15.	Addressed customer as quality management	nd supplier feedb	oack on current	3.57	strongly agree
16.	Implemented controlle	d procedures		3.67	strongly agree
17.	Conducted regular management review			3.62	strongly agree
18.	Identified strengths an system.	d weaknesses of t	he management	3.69	strongly agree
19.	Addressed identified ris	ks in the systems a	and processes	3.67	strongly agree
20.	Conducted review and	revision of policies	and procedures	3.69	strongly agree
			Overall Mean	3.69	strongly agree
Legend	l: 3.50 – 4.00	strongly agree	2.50 – 3.49 ag	ree	
-	1.50 - 2.49	disagree	1.00 – 1.49 str	ongly dis	sagree

It implies that with a thorough review of the existing policies, processes, and procedures, and implementation of strategies that have been found effective and efficient in other organizations, HEIs will be able to obtain ISO certification and ensure that quality education and services will be provided and delivered to the concerned stakeholders (Campbell & Rozsnyai, 2002). This similarity in the strategies employed by HEIs from different countries reflects the universality and applicability of the ISO standards to educational institutions.

Challenges encountered by the respondents in preparing for ISO certification

In preparing for ISO certification, an institution has to face several challenges. The respondents "agreed" on the challenges they encountered in preparing for the ISO certification of the state college with a mean of 3.17, as presented in table 4. Resistance to change, time management, the existence of other accreditation activities, and lack of awareness on the implementation of ISO standards in the academe are among the top challenges encountered by the respondents. These support the study of Sohail et al. (2003) and Mohamed et al. (2015) among HEIs in Malaysia where resistance to change is high, the study of Hussein et al. (2017) in Lebanon where the personnel in the institution mixed up the accreditation and

certification activities and requirements and had difficulty in time management, and the study of Elgobbi (2014) in Libya where the university had difficulty in applying the ISO standards to the educational system.

Table 4. Challenges encountered by the respondents in preparing for ISO certification.

Item	Mean	Interpretation
1. Lack of awareness on the implementation of ISO standards	3.31	agree
2. Resistance of people to change	3.45	agree
3. Terminology used in ISO 9001	3.26	agree
4. Existence of other accreditation activities	3.35	agree
5. Commitment of top management	2.70	agree
6. Time management	3.37	agree
7. Availability of Resources	3.13	agree
8. Difficulty of performing internal audits	2.85	agree
9. Insufficient employee training	3.23	agree
10. Insufficient knowledge about quality programs	3.02	agree
Overall Mean	3.17	agree
Legend: 3.50 – 4.00 strongly agree 2.50 – 3.49 s	agree	
1.50 – 2.49 disagree 1.00 – 1.49 s	strongly di	sagree

It implies that HEIs are expected to encounter challenges in obtaining ISO certification. These challenges are almost similar among higher education providers and have been addressed by those who have successfully obtained certification. Learning from the experiences of other HEIs By identifying the challenges to be encountered in the ISO certification process, education institutions will be able to identify solutions to ensure compliance with the standards (Jung et al., 2013). The support of the top management, as the person accountable for implementing a quality management system in the institution, plays a very important role in obtaining and maintaining ISO certification (Marginson, 2009).

Actions to address the challenges to acquire ISO certification

In order to be certified, the state college addressed the challenges they encountered in obtaining ISO certification. Table 5 shows that the respondents "strongly agree" on the actions they performed to address the challenges they encountered, with an overall mean of 3.58. The actions involved the

implementation of different strategies and motivating all administrators, faculty, and staff to cooperate and be committed to providing quality education and services (Killen, 2000). The findings revealed that the institution's actions to address the challenges helped the institution acquire ISO certification. This achievement indicates a good performance on the part of the school (Marginson, 2009). This implies that institutions can overcome challenges to acquire ISO certification with the strong support and cooperation of all stakeholders.

Item	Mean	Interpretation	
1. Lack of awareness on the implementation of ISO standards			
a. Participated in orientations and seminars	3.56	strongly agree	
b.Participated in meetings conducted for ISO certification	3.68	strongly agree	
c. Read materials about ISO certification	3.61	strongly agree	
2. Resistance to change			
a. Read or listened to important announcements relative to ISO certification	3.69	strongly agree	
b.Asked questions to clarify issues	3.62	strongly agree	
c. Disseminate information relative to ISO certification	3.58	strongly agree	
3. Terminology used in ISO 9001			
a. Read ISO materials to clarify terminologies	3.58	strongly agree	
b.Attended meetings and orientations	3.60	strongly agree	
c. Asked questions to clarify meanings	3.57	strongly agree	
4. Existence of other accreditation activities			
a. Help my unit in preparation for ISO certification	3.77	strongly agree	
b.Support other faculty assigned for program accreditation	3.80	strongly agree	
c. Submitted required documents on time	3.51	strongly agree	
5. Commitment of top management			
a. Initiated conduct of orientations and trainings	3.55	strongly agree	
b.Provided necessary resources for ISO certification	3.67	strongly agree	
c. Implemented quality management system in the whole institution	3.56	strongly agree	
6. Time management			
a. Observed implementation of the calendar of activities	3.62	strongly agree	
b.Identified priorities among activities	3.58	strongly agree	
c. Prepared necessary documents in advance	3.55	strongly agree	

Table 5. Actions to address the challenges to acquire ISO certification.

7. Availability of resources		
a. Requested budget for the ISO certification process	3.64	strongly agree
b.Requested for necessary supplies and materials	3.61	strongly agree
c. Requested for manpower necessary for preparation	3.46	agree
8. Difficulty of performing internal audits		
a. Helped in preparing our unit for internal audit	3.64	strongly agree
b.Participated in the conduct of internal audits	3.52	strongly agree
c. Helped my unit in implementing compliance to identified nonconformities	3.67	strongly agree
9. Insufficient employee training		
a. Identified necessary training for the faculty or employees	3.39	agree
b.Requested for faculty or employee training	3.39	agree
c. Participated in the conduct of in-house trainings	3.43	agree
10. Insufficient knowledge about quality programs		
a. Participated in the review of policies and procedures	3.50	strongly agree
b.Followed approved written procedures	3.58	strongly agree
c. Provided feedback whenever necessary	3.56	strongly agree
Overall Mean	3.58	strongly agree

Legend: 3.50 – 4.00 strongly agree 2.50 – 3.49 agree 1.50 – 2.49 disagree 1.00 – 1.49 strongly disagree

Changes observed by the respondents after being awarded ISO certification

Being recognized as ISO certified brings changes to the state college, as revealed in table 6. The respondents "Strongly agree" with these changes with an overall mean of 3.63. Standardization of processes, improved school image, compliance with statutory and regulatory requirements, improved control of documents, and a clear path towards continual improvement are the most significant changes observed by the respondents. These conform to the benefits observed by other HEIs in Malaysia (Sohail et al., 2003; Othman et al., 2017), Turkey (Eryilmaz et al., 2016), and Kenya (Andiva & Simatwa, 2018).

	Item	Mean	Interpretation
1.	Improved school image	3.73	strongly agree
2.	Met customer requirements	3.64	strongly agree
3.	Met regulatory and statutory requirements	3.70	strongly agree
4.	Less customer complaints	3.39	agree
5.	Good relations with interested parties	3.49	agree
6.	Standardization of processes	3.77	strongly agree
7.	Clear roles and responsibilities	3.62	strongly agree
8.	Improved communication with internal and external relevant parties	3.65	strongly agree
9.	Improved control of documents	3.69	strongly agree
10.	Continuous analysis, monitoring, and evaluation of systems and processes	3.63	strongly agree
11.	Implementation of proactive approach rather than reactive approach	3.60	strongly agree
12.	Clear path towards continual improvement	3.68	strongly agree
13.	Engaged faculty and staff	3.60	strongly agree
14.	Increased customer satisfaction	3.63	strongly agree
15.	Improved quality of instruction	3.56	strongly agree
	Overall Mean	3.63	strongly agree

Table 6. Changes observed by the respondents after being awarded ISO certification

Legend: 3.50 - 4.00 strongly agree 2.50 - 3.49 agree 1.50 - 2.49 disagree 1.00 - 1.49 strongly disagree

This implies that ISO certification improves the systems and processes of a higher education institution. Through this, the HEI will be able to maintain and sustain the quality of education and services it provides among its clientele (Jung et al., 2013). Likewise, the benefits of ISO certification could not only be observed in being awarded the certification but most importantly in the improvement of the processes and systems of the institution which may result in an improved quality of education and services provided to the stakeholders (Quinn et al., 2009).

CONCLUSIONS

Based on the relevant findings of this study, the researcher has drawn the following conclusions, (1) the respondents have a positive perception of ISO certification to the state college as revealed when they "Strongly agree" on its positive effects on the institution, (2) the respondents "Strongly agree" on the several strategies employed by the institution in preparing for ISO certification, (3) the respondents "Strongly agree" that the state college has encountered several challenges in preparing for ISO certification, (4) the respondents had taken actions to address the challenges they encountered in preparing for ISO certification, and (5) the respondents observed several positive changes after the state college was awarded ISO certification. These findings attest to the applicability of ISO 9001 standards in higher education institutions and confirm the benefits certification has to the quality of education and services being provided by the HEIs. Though challenges cannot be eliminated, the institutions' administrators, faculty, employees, and other stakeholders could work together to receive and maintain ISO certification for the benefit of the students, the industry, and the community they serve.

RECOMMENDATIONS

Based on the conclusions, this study has the following recommendations, (1) to obtain and maintain ISO certification, higher education institutions need to intensify information campaigns on the dissemination of revised policies and processes to lessen resistance to change, guide the faculty and employees in managing their time and increase their awareness of the implementation of the quality management system; and (2) HEIs may also need to strengthen implementation of monitoring and evaluation to immediately address customer issues and concerns and improve relations with other interested parties. Finally, this study may also be conducted among HEIs in other developing countries to determine similarity in the challenges that may be encountered to obtain ISO certification and the strategies that may be adopted to ensure efficient implementation of the quality management system and produce and deliver quality products and services that are compliant with the international standards.

LITERATURE CITED

- Andiva, Z. K. (2019). Influence of Iso 9001: 2008 Quality Management System On Academic Staffs Service Delivery in Public Universities in Kenya (Doctoral dissertation, Maseno University). https://repository.maseno.ac.ke/ handle/123456789/1372
- Campbell, C., & Rozsnyai, C. (2002). Quality Assurance and the Development of Course Programmes. *Papers on Higher Education*. Retrieved from https:// files.eric.ed.gov/fulltext/ED475532.pdf.
- Cheng, Y. Y., Lyu, J. R. J. U. N. G., & Lin, Y. C. (2004). Education improvement through ISO 9000 implementation: Experiences in Taiwan. *International Journal of Engineering Education*, 20(1), 91-95. Retrieved from https://www. ijee.ie/articles/Vol20-1/IJEE1468.pdf
- Elgobbi, E. M. (2014). Implementing the requirement of Quality Management System according to ISO 9001:2008 in higher education institutions: A case study of Sirte University in Libya. *International Conference on Law, Management and Humanities (ICLMH '14) on June 21-22, 2014* at Bangkok Thailand. http://dx.doi.org/10.15242/ICEHM.ED0614009
- Eryılmaz, M. E., Kara, E., Aydoğan, E., Bektaş, O., & Erdur, D. A. (2016). Quality management in the Turkish higher education institutions: preliminary findings. *Procedia-Social and Behavioral Sciences*, 229, 60-69. https://doi.org/10.1016/j.sbspro.2016.07.114
- Gidley, J. M., Hampson, G. P., Wheeler, L., & Bereded-Samuel, E. (2010). From access to success: An integrated approach to quality higher education informed by social inclusion theory and practice. *Higher Education Policy*, 23(1), 123-147. https://doi.org/10.1057/hep.2009.24
- Grochau, I. H., Caten, C. S. ten, & de Camargo Forte, M. M. (2018). Motivations, benefits and challenges on ISO/IEC 17025 accreditation of higher education institution laboratories. *Accreditation and Quality Assurance*, 23(3), 183–188. doi:10.1007/s00769-018-1317-9

- Gudo, C. O., Olel, M. A., & Oanda, I. O. (2011). University expansion in Kenya and issues of quality education: Challenges and opportunities. Retrieved from https://repository.maseno.ac.ke/handle/123456789/2219
- Hussein, B., Abou-Nassif, S., Aridi, M., Chamas, M., & Khachfe, H. (2017). Challenges and prospects of implementing ISO 9001: 2015 in Lebanese higher education institutions. *J. Resour. Dev. Manage*, 33, 41-51. https:// core.ac.uk/download/pdf/234696495.pdf
- Jung, I., Wong, T. M., & Belawati, T. (Eds.). (2013). Quality assurance in distance education and e-learning: Challenges and solutions from Asia. SAGE Publications India. Retrieved from https://bit.ly/3D5xNPv
- Kasperavičiūtė-Černiauskienė, R., & Serafinas, D. (2018). The adoption of ISO 9001 standard within higher education institutions in Lithuania: innovation diffusion approach. *Total quality management & business excellence*, 29(1-2), 74-93. doi:10.1080/14783363.2016.1164012
- Killen, R. (2000). Outcomes-based education: Principles and possibilities. Unpublished manuscript, University of Newcastle, faculty of education. Retrieved from https://bit.ly/3mk59Dg
- Laguador, J. M., Villas, C. D., & Delgado, R. M. (2014). The journey of Lyceum of the Philippines University-Batangas towards quality assurance and internationalization of education. *Asian Journal of Educational Research*, *2*(2), 56-61. Retrieved from https://bit.ly/3a3SSNE
- Li, Y. (2010). Quality assurance in Chinese higher education. *Research in Comparative and International Education*, 5(1), 58-76. Retrieved from https://doi.org/10.2304/rcie.2010.5.1.58
- Marginson, S. (2009). Open source knowledge and university rankings. *Thesis Eleven*, 96(1), 9-39. Retrieved from https://doi. org/10.1177/0725513608099118
- Martin, A., & Thawabieh, F. A. (2018). The effect of ISO 9001 to Oman higher education operational performance: Buraimi university college as a case

study. International Journal of Applied Engineering Research, 13(6), 3939-3947. https://bit.ly/3Hch6V1

- Martin, M. (2018). Internal Quality Assurance: Enhancing higher education quality and graduate employability. UNESCO. http://repositorio.minedu.gob.pe/ handle/20.500.12799/5722
- Memorandum Circular No. 2018-1. Guidelines on the Grant of the Performance-Based Bonus for Fiscal Year 2018 under Executive Order No. 80 S. 2012 and Executive Order No. 201 s. 2016. Inter-Agency Task Force on the Harmonization of National Government Performance Monitoring, Information and Reporting Systems. Retrieved on from Retrieved from https://bit.ly/2YkFHoY
- Mohamed, H. A.-B., Ab. Ghani, A. M., & Basir, S. A. (2015). Factors influencing the implementation of Islamic QMS in a Malaysian public higher education institution. *Total Quality Management & Business Excellence, 27(9-10)*, 1140–1157. doi:10.1080/14783363.2015.1064765
- Othman, N., Mokhtar, S.S. M., & Asaad, M. N. M. (2017). Quality Management System ISO 9001:2008 and ISO 9001:2015 Standards within Higher Education Institutions. *Journal of Global Business and Social Entrepreneurship (GBSE)*, 3 (6), 40-46.
- Quinn, A. Lemay, G., Larsenn, P., & Johnson, D.M. (2009). Service quality in higher education. *Total Quality Management*, 20 (2) 139-152. doi: 10.1080/14783360802622805
- Rosaroso, R. C., Dakay, I. & Sarmiento, R. (2015). Selected Philippine higher education institution's perspectives on internationalization of education: Initiatives and guidelines. *Asia Pacific Journal of Education, Arts and Sciences*, 2(4), 38-45.
- Ryan, T. (2015). Quality assurance in higher education: A review of literature. *Higher Learning Research Communications*, 5 (4). http://dx.doi.org/10.18870/ hlrc.v5i4.257

- Sabio, R. A., & Junio-Sabio, C. (2014). Concerns for quality assurance and excellence in higher education. *International Journal of Information Technology and Business Management*, 23(1), 35-51. Retrieved from https:// bit.ly/2Ylau4L
- Sisno, R. T. (2017). Conformance on Quality Management System of one state college in the Philippines as Basis for ISO certification. *Asia Pacific Journal* of *Multidisciplinary Research*, 5 (4), 94-103.
- Sohail, M.S., Rajadural, J., & Rahman, N.A.A. (2003). Managing quality in higher education: Malaysian case study. *The International Journal of Educational Management*, 17 (4), 141-146. doi: 10.1108/09513540310474365