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Original Article

International Organization for Standardization (ISO) Certification and Quality Service Practices of Selected State Colleges and Universities in Region III

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ABSTRACT

The continuing efforts of state colleges and universities in the Philippines to obtain ISO 9001:2015 Certification and re-certification have raised speculations on its supposed benefits. This has resulted to the growing interest in determining the impact of the certification efforts in the delivery of quality higher education services in selected state university specifically in Region III. The research employed the quantitative descriptive correlational research design perspective with the survey questionnaire as the primary data collection tool from the 400 students and faculty respondents who were selected randomly using the quota sampling technique. The researcher found out that the state universities generally were progressing towards Level III institutional accreditation, had been in SUC Level III in the past two years, were not yet recognized as either Center of Excellence or Development, had a large number of student enrollment and with the adequate number of faculty members and non-teaching personnel. The respondents assessed the practices under ISO 9001 Certification as highly practiced. The respondents assessed the indicators for Quality Service practices as very evident. There was a significant difference in the assessment of the respondents with regard to the subcategories/dimensions on the Present Status of SUCs on the Quality Service Practices to the SUC's profile variable. There was a significant difference on the assessment of the respondents towards dimensions on ISO 9001 practices of SUC's profile variables. There was a significant difference on the assessment of the respondents towards dimensions on ISO 9001 practices of SUC's as grouping variables. There was a positive moderate relationship between the Quality Service practices and the ISO 9001 practices of the SUC's. An Intervention program was proposed to enhance Quality Services of State Universities in the Region of Central Luzon. Based on the gathered data and findings of the study, the researcher has formulated the following recommendations; possible conduct of further research on the ISO 9001:2015 practices and utilizing mixed methods may be conducted to validate the findings of this study. Qualitative methods can enrich the understanding obtained from data in the study; that the proposed intervention plan is encouraged to be implemented which aims to improve the quality service practices of the state universities; universities are encouraged to establish a comprehensive and intensive research program by establishing an in-service training for faculty to enhance their research and statistics capabilities; the leadership of the universities may vigorously pursue innovative practices through research, the top management may consider the provision of incentives to research aimed at generating institutional knowledge that would lead to better services; and for future researcher/s, a replication of the study with an in-depth and wider scope in order validate the salient findings obtained in the study.

Key Words: *ISO Certification, Quality Service Practices , State Colleges and Universities, Region III*

INTRODUCTION

Quality assurance is an all-embracing term covering all the policies, processes, and actions through which the quality of higher education is maintained and developed (Campbell &Rozsnyai, 2002). In higher education, quality assurance refers to explicit commitment and practices of higher education institutions to the development of an institutional culture which recognizes the importance of quality and the continuous enhancement of quality of services (Defensor, 2011). Quality has a variety of definitions and a broad concept. For some, quality is linked to the meaning of superiority and excellence, and to others quality is an assurance that there are fewer services or products with defects. Quality is otherwise linked to product features (Alzhrani, et al., 2016). The majority of these definitions focus on customers and their satisfaction (Takalo, et al., 2013).

As an answer to this clarion call for quality, there have been efforts to increase quality among the Higher Education Institutions (HEIs). These include the process of developing Centers of Development and Centers of Excellence. Several umbrella organizations have also continued to give accreditation to private and public colleges and universities. There

have been efforts to increase collaboration among the different stakeholders, including industry, in redesigning the higher education curriculum, instituting international bench marking and increasing internationalization of higher education. But one of the recent efforts especially among the state colleges and universities is to apply for ISO 9001 Certifications for their quality management systems. This is in adherence in part to Administrative Order No. 161 entitled Institutionalizing Quality Management System in Government, as amended by Executive Order No. 605 entitled Encouraging Local Government Units (LGU's), State Universities and Colleges (SUC's), the Judiciary, the Legislature and the Constitutional offices to establish ISO-Quality Management Systems and pursue certification.

But the overarching intent of the ISO QMS certifications is the improvement of quality of services to its clientele. There is now an impetus for what Rezeanu (2011) terms as stimulative policies. Stimulative policies mean those which do not force quality measurement in universities but has created a motivational field for developing and implementation of management and quality systems. This has created a sort of domino effect among private and public colleges to aspire for ISO 9001 Certifications. ISO 9001 has proven to be the popular management system (Yaya, Marimon, & Casadesus, 2014). It is a set of the requirements for a quality management system (QMS) with a tested framework based on 'PDCA' cycle (Plan- Do-Check-Act cycle) that causes this standard to effectively improve organizations' performance. The ISO 9001:2015 standard, which is the most common standard used in the Philippine education context, is based on a number of quality management principles including a strong customer focus, the motivation and implication of top management, the process approach and continual improvement. Furthermore, ISO 9001:2015 helps ensure that organization's products and services consistently meet their clients' requirements, and that quality is consistently improved (Fonseca &Domingues, 2016). Several studies have been undertaken to examine the advantages and effects of ISO 9000 on specific performance in the organizations. Although ISO 9000 certification has shown its benefits, the research community is still "ambiguous" to its usefulness or potential advantages of ISO 9001 in improving the overall performance of the firms (Neyestani&Juanzon, 2017).

The literature on ISO 9001 Certification has been conducted on a variety of organizations. But there has been little focus on ISO certification in higher education institutions especially in the Philippine setting. The main question that this study intends to answer is whether the adoption of the ISO standards rebound to improved services in state universities and colleges. In an era of multiple certifications, it is important to ascertain whether ISO certifications answer the call for quality.

STATEMENT OF THE PROBLEM

This study aimed to determine the status of ISO certification 9001-2015 of State Universities and Colleges in Region III and their existing quality service practices during the Academic Year 2020. Specifically, the study sought to provide answers to the following questions:

1. What is the present status of SUC's with ISO 9001:2015 Certification in terms of the following parameters:
   1.1. Institutional accreditation;
   1.2. accredited programs offered;
   1.3. programs evaluated as Center of Excellence;
   1.4. programs evaluated as Center of Development;
   1.5. SUC leveling for the last three (3) years;
   1.6. number of students;
   1.7. number of faculty; and
   1.8. number of non-teaching staff?

2. How do the respondents assess the ISO 9001 Certification Practices of SUC's with regards to the following:
   2.1. Customer/ Clientele focus;
   2.2. Total employee commitment;
   2.3. Process approach;
   2.4. Integrated system;
   2.5. Strategic and systematic approach;
   2.6. Continual improvement;
   2.7. Fact-based decision making; and
   2.8. Communications?

3. How may the Quality Service Practices be described among the SUC's as assessed by the respondents with regards to the following aspects:
   3.1. Academic;
   3.2. Faculty;
   3.3. Research;
   3.4. Students;
   3.5. Administration;
   3.6. Linkages and Networking?

4. Is there a significant difference on the assessment of the respondents towards status of SUC's with ISO 9001:2015 Certification parameters as cited in problem 1?
5. Is there a significant difference on the parameters towards ISO 9001 Certification Practices of SUC's as cited in problem number 2?
6. Is there a significant difference on the assessment towards parameters of Quality Service Practices among SUC's as cited in problem number 3?
7. Is there a significant relationship between ISO 9001 Certification Practices and the Quality Service Practices among SUC's?
8. What intervention program may be proposed to increase the quality service practices of state universities and colleges?

METHODOLOGY

The study made use of a descriptive-survey research design. The survey questionnaire was used to describe the ISO 9001 practices of the state universities and colleges according to its six guiding principles as well as to establish the quality service practices of the SUC's. Creswell (2012) claims that the quantitative descriptive approach is intended for studies that desire to establish trends. Furthermore, establishing trends according to Creswell means finding the overall tendency of the respondents and explaining the same through descriptive statistics. This led the researcher to identify the quantitative descriptive approach. Descriptive research seeks to describe the characteristics or behavior of an audience. Its purpose is to describe, as well as to explain or to validate some sort of hypothesis or objective when it comes to a specific group of people. Specifically, this research employed survey that involved interviews or discussions with larger audiences and are often conducted on more specific topics (McNeill, 2018). Furthermore, Salaria (2012) define descriptive survey research as a method of research which concerns itself with the present phenomena in terms of conditions, practices, beliefs, processes, relationships or trends According to Best and Kahn (2007), descriptive research employs the process of disciplined inquiry through the gathering and analysis of empirical data, and invariably.

A target population for a study is the entire set of individuals chosen from the overall population for which the study data are to be used to make inferences. The target population defines the population to which the findings of a survey are meant to be generalized. It is important that target populations are clearly identified for the purposes of research study (McMillan & Schumacher, 2010). The respondents of the study were the 200 faculty members and 200 students at state universities and colleges in the western part of Region III for Academic Year 2020. A sample of fifty (50) students and fifty (50) faculty members from each of the state colleges and universities in Central Luzon were randomly selected as respondents of this study using Quota sampling technique. The sample was significant in size as related to the population being studied and is expected to provide uniformity to the study (Creswell & Plano Clark, 2007). This is also expected to reduce sampling errors and allow inferences to be made about the population. The distribution of teacher and student respondents as per selected state universities and colleges is presented in Table 1.

Table 1. Distribution of Respondents According to State Universities and Colleges in Region 3

State College/University	No. of Faculty	No. of Students	Total
Bataan Peninsula State University	50	50	100
Don Honorio Ventura State University	50	50	100
Pampanga State Agricultural University	50	50	100
President Ramon Magsaysay State University	50	50	100
TOTAL	**200**	**200**	**400**

Central Luzon is designated as Region III, is an administrative region in the Philippines, primarily serving to organize the 7 provinces of the vast central plains of the island of Luzon (the largest island), for administrative convenience. The region contains the largest plain in the country and produces most of the country's rice supply, earning itself the nickname "Rice Granary of the Philippines". Its provinces are: Aurora, Bataan, Bulacan, Nueva Ecija, Pampanga, Tarlac and Zambales (DILG-Region 3- Regional Management. Department of the Interior and Local Government. Retrieved May 29, 2016).

A survey questionnaire was used in gathering the data. Information and documents were also solicited to the appropriate administrative offices on the status of the state universities and colleges in Region III. This part included the number of students and personnel as well as the accreditation of the aforementioned SUC's. The instrument of the study consisted of two-part questionnaire intended for the students and faculty members of the selected SUC's. The first part consisted of 30 Likert type items that seeks to establish the ISO 9001:2015 practices of the SUC; s. The second part of the questionnaire were related to quality service practices in the SUC; s as observed by the teachers and students. This was a modification of the HEDPERF (Higher Education Performance) Scale which originally had 41 items. All the items in the student and teacher questionnaire are four-scale Likert scales: (4- Very Evident (VE), 3- Evident (E), 2- Moderately Evident (ME) and 1- Fairly Evident (FE) for the Quality Services Practices and (4 – Highly Practiced (HP),

3- Often Practiced OP), 2- Practiced (P) and 1- Seldom Practiced). The researcher conducted a dry run or trial among twenty (20) teachers and twenty (20) students of the institution (PRMSU) who were not included as respondents of this study. A Cronbach was used to assure validity and reliability of the survey instrument. All noted discrepancies or vague statement on the instrument was integrated and incorporated in the finalization of the instrument.

The researcher sought permission to the College Deans and/or University Presidents of the selected state colleges and universities. Hard copies of the survey instrument were printed for distribution to PRMSU respondents who were accessible during those times. Health protocols were strictly observed such as using face masks, face shields and social distancing. In other SUC's, to facilitate the administration of the research instrument, a Google form containing the same contents were provided to the respondents with the help of other school personnel. The responses in the Google form were made available through a corresponding Google sheet that was served as the repository of respondent data. The data obtained from the Google sheets were transcribed into the Statistical Package for Social Science (SPSS) Version 20.The average rating for each item was computed to determine the practices of the university in obtaining ISO 9001 certification and Quality Services practices.

RESULTS AND DISCUSSIONS

1. Present Status of SUC's with ISO 9001:2015 Certification 9001:

Table 2 shows the present status of State Colleges and Universities with ISO 9001:2015 Certification according to institutional accreditation, number of accredited programs, programs offered as center of excellence and center of development, SUC leveling for the last 3 years, and number of students respectively.

Table 2. Present Status of SUC's with ISO 9001:2015 Certification

Status of State Colleges and Universities (SUC's)		Frequency (f)	Percentage (%)
Institutional Accreditation			
	Level 1	0	0.00
	Level 2	0	0.00
	Level 3	4	100.00
	Level 4	0	0.00
	Total	4	100.00
Number of Accredited Programs			
	SUC 1	38/40	95.00
	SUC 2	35/35	100.00
	SUC 3	25/28	89.29
	SUC 4	50/50	100.00
	Total	148/153	96.73
Status of State Colleges and Universities (SUC's)		**Frequency(f)**	**Percentage(%)**
Programs Offered as Center of Excellence		0	0.00
	Total	0	0.00
Programs Offered as Center of Development		0	0.00
	Total	0	0.00

Present Status of SUC's with ISO 9001:2015 Certification

Table 2 (Continuation…)

Status of State Colleges and Universities (SUC's)		Frequency (f)	Percentage (%)
Programs Offered as Center of Excellence		0	0.00
	Total	0	0.00
Programs Offered as Center of Development		0	0.00
	Total	0	0.00
SUC Leveling for the Last 3 years			
2017-2018	Level 1	0	0.00
	Level II	1	25.00
	Level III	3	75.00
	Level IV	0	0.00
	Total	4	100.00
2028-2019	Level 1	0	0.00
	Level II	0	0.00
	Level III	3	75.00
	Level IV	1	25.00
	Total	4	100.00

2019-2020	Level 1	0	0.00
	Level II	0	0.00
	Level III	3	75.00
	Level IV	1	25.00
	Total	4	100.00
Number of Students Enrolled			
	More than 10,000	3	75.00
	6001 – 7000	1	25.00
	Total	4	100.00
Number of Faculty Members			
	501-1,000	2	50.00
	Less than 500	2	50.00
	Total	4	100.00
Number of Non-Teaching Staff			
	501- 1,000	3	75.00
	Less than 500	1	25.00
	Total	**4**	**100.00**

Institutional Accreditation. Majority of the SUC's with 4 or 100.00 were accredited institutional Level 3. This clearly indicates that the SUC's had already submitted for institutional accreditation duly approved by government agency on accreditation. To be accredited, the institution had passed challenges and difficulty to satisfy the stringent criteria and requirement for quality services. Accrediting agencies for government-supported institutions are the Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACCUP), and the Association of Local Colleges and Universities Commission on Accreditation (ALCUCOA). Together they formed the National Network of Quality Assurance Agencies (NNQAA) as the certifying agency for government-sponsored institutions. However, NNQAA does not certify all government-sponsored institutions. Like private institutions, satellite campuses of non-system public institutions of higher learning are subject to separate accreditation.

Number of Programs Accredited. There were two (2) SUC's assessed 100.00% programs accredited as to SUC-2 with 35/35; and SUC-4, 50/50. SUC-1 had 38 over 40 programs accredited equivalent o 95.00% while SUC-3, there were 25 over 28 programs accredited equivalent to 89.29%. Overall, there were 148/153 or 96.73 programs were accredited. This further indicates on the importance of program accreditation as an indicator that the offering of the program had complied the minimum standard requirements. The accreditation is mandated by CHED circular memorandums #1, series of 2005, Article II. Institutional Accreditation is the evaluation of a whole educational institution of which the guidelines and standards shall be formulated in collaboration with the existing federations/networks of accrediting agencies to be accredited by accrediting body which is the Accrediting Agency for Chartered Colleges and Universities of the Philippines (AACCUP).

Number of Offered as Center of Excellence. At the time on the conduct of the study, nobody among SUC's had been awarded as Center of Excellence. This indicates on the difficulty of securing the certification for center of excellence considered as the highest level of institutional achievement.Excellence in higher education may be equated differently in different contexts. As per a students' perspective, it may be defined as indicating standing and academic reputation of an institution. However, this depends on students' experiences and institutional missions. The term "Excellence" has been used extensively by accreditors to define the level of quality processes and services offered by institutions for the stakeholders' satisfaction and success of students. Many accrediting bodies have defined Excellence as a tangible reality; a combination of inputs using quantitative and qualitative indicators and continual progress of improved outputs. Some researchers like Brusoni et al. (2014) have considered Quality of curriculum, teaching-learning, availability of resources, level of research, skill enhancement of students, and level of students' learning outcomes and achievements as measures of excellence (Brusoni, 2014).

Programs Offered as Center of Development. At the time on the conduct of the study, nobody among SUC's had been awarded as Center of Development. This clearly demonstrate on the difficulty of attaining this level because of the stringent on criteria and instrument. Center of Development (COD) refers to a department within a higher education institution, which demonstrates the potential to become a Center of Excellence (COE) in the future. II. Legal Basis. The Center of Development program is provided for under Section 8 (f) of RA 7722, otherwise known as the "Higher Education Act.

SUC Leveling for the last 3 years.

SY 2017-2018. There were 3 or 75.00% were accredited and attained Level III; 1 or 25.00%, accredited as Level II and nobody was accredited as Level I and IV respectively. **SY 2018-2019**. There were 3 or 75.00% were accredited Level III; 1 or 25.00%, accredited as Level IV and nobody was accredited as Level I and II respectively. **SY 2019-2020**.

There were 3 or 75.00% were accredited Level III; 1 or 25.00%, accredited as Level IV and nobody was accredited as Level I and II respectively. These indicate that the SUC's in Western part of Region 3 have been exerting efforts to attain quality and excellence of its program offerings to be able to attain centers of excellence and development. The SUC's are working for its programs to be accredited and attain the highest level of accreditation. As defined, State universities and colleges (SUC's) refers to any public institution of higher learning that was created by an Act passed by the Congress of the Philippines.

Number of Students Enrolled. There were 3 or 75.00% with more than 10,000 students enrolled in various curricular programs; and 1 or 25.00%, with 6001-7.000 enrolled students. This is similar on the report where only 10 percent of college students were in state-run schools in 1980, but this rose to 21 percent in 1994 and to almost 40 percent in 2008 (CHECD, 2022). For school year 2019-2020 of the 3,408,425 enrollments, 1,321,773 (38.78%) were from State Colleges and Universities (SUC's), 248,731 (7.3%) were from Local Universities and Colleges (LUC's), 5,141 (0.15%) were classified under "Other Government Schools" (OGS), while 1,832,780 (53.77%) were from Private Higher Education Institutions (Malaya Newspaper, June 05, 2008). SUC's are confronted by annual budget cutbacks. As a result, these schools impose enrolment quotas and increase fees. In recent years, tuition and miscellaneous fees in the SUC's have seen huge increases. SUC's are also forced to accept only a limited number of students due to budget cuts. In 2007, some 66,000 high school graduates took the University of the Philippines College Admission Test (UPCAT) but only around 12,000 were admitted (Malaya Newspaper. June 05, 2008).

Number of Faculty Members. There were 2 or 50.00% with 501-1,000 and less than 500 faculty respectively. The allocation of the desired number of faculty is equated on the student population. In general, the lower the student to faculty ratio, the better. After all, a low ratio should mean that classes are small and faculty members can spend more time working individually with students. That said, the student to faculty ratio doesn't paint the entire picture, and many other factors contribute to the type of undergraduate experience you'll have. (Grove, 2019). Many colleges and universities rely heavily on adjunct, graduate student, and visiting faculty members in an effort to save money and avoid the type of long-term financial commitment that lies at the heart of the tenure system. This issue has been in the news in recent years after national surveys revealed that over half of all college and university instructors are adjuncts.

Number of Non-Teaching Staff. There were 2 or 50.00% with 501-1,000 and less than 500 faculty respectively. Non-Academic staff members are professional employees who contribute very significantly to the success of Higher Educational Institutions. They bring to the Higher Educational Institutions an important repertoire of professional skills, possess a wealth of institutional knowledge, provide essential resources, and work alongside of faculty and Administration in realizing the Institution's mission. Many have served through several administrations and numerous leadership changes at the departmental level. This long-term experience gives them invaluable expertise and lends consistency to the daily operations of the institution.The contribution of non-academic staff highly influences the student experience at HEIs. While faculty supports students academically and in research, the staff makes equally important contributions toward the success of students through many critical support and operational services(Gupta, 2020).

2. Perception of the respondents towards Practices of SUC's with ISO 9001: 2015 Certification

2.1 Quality Clientele Focus

Table 3 shows the quality service practices in terms of customer/ client focus. The responses show that the participating state universities highly practice ($\bar{x} = 3.60$) customer/ clientele focus.

Table 3. Perception of the respondents towards ISO 9001 Certification Practices of SUC's in terms of Customer Clientele Focus

Customer Clientele Focus	Weighted Mean	Qualitative Interpretation	Rank
1. The university carefully assesses the needs and expectations of its students, parents, and the community.	3.63	Highly Practiced	1
2. The university takes into consideration the problems and issues raised by its internal stakeholders including the faculty and non-academic personnel.	3.60	Highly Practiced	2.5
3. The university analyzes and evaluates customer complaints to identify patterns and to prevent the same issues from recurring.	3.58	Highly Practiced	5
4. The university uses data from internal and external stakeholders to improve services.	3.60	Highly Practiced	2.5
5. The university communicates and addresses the needs and expectations of the internal and external stakeholders.	3.59	Highly Practiced	4
Overall Weighted Mean	**3.60**	**Highly Practiced**	

Among the indicators for this criteria, Item no. 1 ($\bar{x} = 3.63$) obtained the highest mean rating. This points to the emphasis placed by the state universities in assessing the needs and expectations of its students, parents, and the

community. This assessment of the needs and expectations is important as research reveals that students from the millennial generation frequently see themselves as unique, and they often have very specific expectancy that their needs/wants will be met. Furthermore, institutions of higher education, faculty, students, and businesses can serve as contributing architects in ensuring education establishes quality standards. They are all consumers, and they all have a vested interest in maintaining standards (Hall et al., 2017). According to Madriaga (2015) explains that the emphasis on customer focus stems from the reality that there is now a lot of higher education institutions to choose from. Without customer focus, the state universities are at risk of losing their learners to more innovative and customer-friendly institutions.

On the other hand, Item No. 3 ($\bar{x} = 3.58$), although still highly practiced, obtained the lowest rating. Under this indicator, the university analyzes and evaluates customer complaints to identify patterns and to prevent the same issues from recurring. Part of any ISO certification effort is the institutionalization of satisfaction surveys which include the customer complaints. And while all the respondent universities have their own systems of handling customer complaints, there is still room for improvement. The state universities in the present study have employees who highly practiced total commitment ($\bar{x} = 3.60$). It appears that the efforts to get certified in ISO 9001:2015 led to employees who are highly committed to the respondent universities. This is similar to the results on the study of Abimbola, et al. (2020), where the analysis showed that the adoption of total quality management practices in an institution significantly affects employee commitment.

2.2 Total Employee Commitment

Table 4 indicates the practices of SUC's with ISO 9001: 2015 Certification in terms of Total Employee Commitment.

Table 4. Perception of the respondentstowardsISO 9001 Certification Practices of SUC's in terms of Total Employee Commitment

Total Employee Commitment	Weighted Mean	Qualitative Interpretation	Rank
1. The employees clearly communicate and acknowledge the importance of an individual's contribution to the completed product.	3.59	Highly Practiced	4
2. The university employees accept ownership of each team or individual and give them the responsibility and opportunity to solve problems when arise.	3.58	Highly Practiced	5
3. The employees are encouraged to perform self-evaluation on personal goals and objectives, and to make modifications as necessary to improve workflow.	3.61	Highly Practiced	2.5
4. The employees make responsibilities clear, provide adequate training, and use their resources as efficiently as possible.	3.63	Highly Practiced	1
5. The employees acknowledge successes and optimized performance to build confidence between/ among employees and stakeholders.	3.61	Highly Practiced	2.5
Overall Weighted Mean	**3.60**	**Highly Practiced**	

As to the indicators under total employee commitment, the respondents rated Item 4 ($\bar{x} = 3.63$) the highest, "the employees make responsibilities clear, provide adequate training, and use their resources as efficiently as possible". This pertains to the articulation of the employee roles and expectations as well as efforts to provide adequate training and resources. Part of the ISO Certification process is the identification of the different processes performed by the organization. And it was evident in research that this leads to clearly defined job responsibility (Martin &Thawabieh, 2018).While the item with the lowest average ($\bar{x} = 3.58$), Item 2, which states that employees accept ownership of each team or individual and give them the responsibility and opportunity to solve problems when arise, was also highly practiced. This ownership of key stakeholders of their responsibilities are important as research shows employee ownership positively impacts organizational performance, and work satisfaction mediates the relationship (Javed, 2018).

2.3 Process Approach

Table 5 shows the quality service practices of the universities in terms of process approach.

Table 5. Perception of the respondents towards ISO 9001 Certification Practices of SUC's in terms of Process Approach

Process Approach	Weighted Mean	Qualitative Interpretation	Rank
1. The Quality Management System of the university defines its objectives and processes necessary to achieve them.	3.66	Highly Practiced	2
2. People are made to understand the organization's capabilities and determine resource constraints prior to action.	3.64	Highly Practiced	3

3. The processes on interdependence are determined and the effect of modifications to individual processes on the system as a whole are analyzed.	3.58	Highly Practiced	5
4. The processes in the university are monitored, analyzed, and evaluated in order to improve performance.	3.68	Highly Practiced	1
5. The QMS establishes authority, responsibility, and accountability for managing processes.	3.61	Highly Practiced	4
Overall Weighted Mean	**3.64**	**Highly Practiced**	

It appears that the use of process approach ($\bar{x} = 3.64$), which is a key feature of quality management systems, especially ISO 9001:2015, is highly practiced in state universities participating in this study. Among the indicators under process approach, Item No. 4, which states that the processes in the university are monitored, analyzed, and evaluated in order to improve performance, obtained the highest mean ($\bar{x} = 3.68$). This would mean that the state universities involved in this study go out of their ways in monitoring and evaluating their performance based on standards. This apparent emphasis on the monitoring of outcomes helps prevent failure of organization. Vykydal, et al (2020) claims that many quality management initiatives especially within service industries, die, because higher education organizations fail to measure outcomes. However, it is evident that focus on determining the interdependence of processes and the analysis of effects of modifications to individual processes on the system as a whole is the weakest link in the process approach of universities. The mean for Item No. 3 is ($\bar{x} = 3.58$). While this still indicates that interdependence of processes are highly practiced, it probably needs more emphasis.

2.4.Integrated System

Table 6 shows the quality service practices of the universities in terms of process approach.

Table 6. Perception of the respondents towards ISO 9001 Certification Practices of SUC's in terms of Integrated System

Integrated System	Weighted Mean	Qualitative Interpretation	Rank
1. The administration and employees promote a work culture focused on quality.	3.67	Highly Practiced	2
2. The administration uses flowcharts and other visual aids to help employees understand how their functions fit in with the rest of the institution.	3.66	Highly Practiced	3
3. The university has mechanisms to use as-is process analysis to see where improvements can be made.	3.61	Highly Practiced	5
4. The administration makes training available for the employees who need to learn new processes and who want to explore opportunities for advancement	3.65	Highly Practiced	4
5. The university administration, faculty and employees focus on quality that will help the university achieve excellence and meet or exceed expectations	3.68	Highly Practiced	1
Overall Weighted Mean	**3.66**	**Highly Practiced**	

It can be gleaned from Table 6 that the use of integrated systems is highly practiced in state universities ($\bar{x} = 3.66$). And among the indicators under integrated systems, it is the focus on quality among administration, faculty and employees that obtained the highest mean ($\bar{x} = 3.68$). In a 2020 article, it is stated that "culture of quality "may be defined as an environment in which employees not only follow quality guidelines, but also consistently see others taking quality-focused actions, hear others talking about quality, and feel quality all around them. Employees at all levels of the organization, and across all functions, must "live" quality in order to achieve this ideal state (Lyall, 2020).

2.4 Systematic and Strategic Approach

Table 7 shows the quality service practices of the universities in terms of Systematic and Strategic approach.

Table 7. Perception of the respondents towards ISO 9001 Certification Practices of SUC's in terms of Systematic and Strategic System

Systematic andStrategic System	Weighted Mean	Qualitative Interpretation	Rank
1. The university provides the employees with the proper training and resources that will help them complete their individual steps in the process.	3.66	Highly Practiced	3.5

2. The university continually improves processes and products, and upgrades equipment as necessary to reach goals.	3.66	Highly Practiced	3.5
3. The university makes continual improvement as a measurable objective for all employees.	3.68	Highly Practiced	1.5
4. The university recognizes, acknowledges, and rewards innovations and process improvements.	3.68	Highly Practiced	1.5
5. The university quickly identifies, reacts, and fixes process bottlenecks or breakdowns.	3.61	Highly Practiced	5
Overall Weighted Mean	**3.66**	**Highly Practiced**	

In general, the respondents believed that strategic and systematic approach is highly practiced in their respective universities ($\bar{x} = 3.66$).For strategic and systematic approach, the respondents assessed that the most highly practiced indicators are Items No 3 and 4. Item No. 3 is making continual improvement measurable objective for employees ($\bar{x} = 3.66$). This is consistent with universities' thrust to determine which data to solicit, evaluate it to set and track progress towards specific and measurable goals, and then work to make continual adjustments to improve that data by leveraging internal expertise (Takeda-Tinker, 2018).Meanwhile, Item No. 4 is the practice of recognizing, acknowledging and rewarding innovations and process improvements ($\bar{x} = 3.66$). UNESCO (2013) reports that important school-level supports tend to be present in schools with higher concentrations of innovative teaching. Based on survey data, in schools where teachers reported higher average levels of innovative teaching practices, they also tended to report that a professional culture must aligned to support innovation, reflection, and meaningful discourse about new teaching practices. It follows that without supporting innovations and process improvements through recognition and rewards systems, innovations will not flourish.

2.6 Continual Improvement

Table 8 shows the quality service practices of the universities in terms of Continual Improvement is highly practiced ($\bar{x} = 3.68$). In fact, among the service quality practices of the different universities, it is continual improvement that garnered the highest mean. This result matches Motita's (2015) study of state universities and colleges in the National Capitol Region which found that TQM practices such as quality planning, customer satisfaction, employee involvement, continual process improvement, performance measures and supplier relationship are being observed at a high extent in the NCR- SUC's, as assessed by the administrators, faculty and non-teaching personnel.

Table 8. Perception of the respondents towards ISO 9001 Certification Practices of SUC's in terms of Continual Improvement

Continual Improvement	Weighted Mean	Qualitative Interpretation	Rank
1. The university implements policies to establish product, process, and system improvements as measurable goals for individuals, teams, and departments.	3.69	Highly Practiced	2.5
2. The university recognizes, acknowledges, and encourages innovation to improve processes and development.	3.71	Highly Practiced	1
3. The university encourages employees to participate in available training sessions to learn and adopt on new and additional roles.	3.68	Highly Practiced	4
4. The university aligns strategically organizational capabilities and goals.	3.64	Highly Practiced	5
5. The university hones knowledge and capabilities to increase performance.	3.69	Highly Practiced	2.5
Overall Weighted Mean	**3.68**	**Highly Practiced**	

Under continual improvement, the universities' recognition, acknowledgement, and encouragement of innovation to improve processes and development had the highest mean and was highly practiced ($\bar{x} = 3.71$).According to Castano (2011) argued that the Philippine government should exert more efforts to provide modern teaching and learning facilities in every state school to improve its deteriorating technological performance. But with the institutionalization of innovation in state universities involved in this study, the impetus for development and growth can be fully supported.

2.7. Fact-Based Decision Making

Table 9 shows the quality service practices of the universities in terms of Fact-Based Decision Making is highly practiced ($\bar{x} = 3.62$).

Table 9. Perception of the respondents towards ISO 9001 Certification Practices of SUC's in terms of Fact-Based Decision Making

Fact-Based Decision Making	Weighted Mean	Qualitative Interpretation	Rank

1. Through the QMS, the key indicators are determined, measured, and monitored to demonstrate organizational performance.	3.55	Highly Practiced	5
2. The QMS ensures that data needed are available for relevant people.	3.56	Highly Practiced	4
3. Data and information are sufficiently accurate, reliable and secure.	3.63	Highly Practiced	3
4. The university has competent people who can organize and evaluate data through suitable methods.	3.66	Highly Practiced	2
5. Leaders of the university make decisions and take actions based on evidence, balanced with experience and intuition.	3.68	Highly Practiced	1
Overall Weighted Mean	**3.62**	**Highly Practiced**	

On top of the list of indicators which were highly practiced in state universities with ISO certification is that the university leaders' decisions and actions are based on evidence and balanced with experience and intuition (Item No. 5, $\bar{x} = 3.68$). Research suggests that the dominant decision-making style of both educational leaders was logical. This style proves that they want specifics and they need a clear understanding of the possible results of the different choices. The educational leaders and faculty members tend to weigh choices and exercise sound and critical judgment while setting aside personal feelings (Sebello, 2019).

2.8 Communication

Table 10 shows that the quality service practices of the universities in terms of communication is highly practiced ($\bar{x} = 3.65$).

Table 10. Perception of the respondents towards ISO 9001 Certification Practices of SUC's in terms of Communication

Communication	**Weighted Mean**	**Qualitative Interpretation**	**Rank**
1. The university has established an official line of communication so that all employees know about updates, policy changes, and new processes.	3.67	Highly Practiced	1.5
2. The employees are involved in decision-making.	3.59	Highly Practiced	5
3. The university make sure everybody in every department understands their roles and how they fit in with the rest of the university.	3.67	Highly Practiced	1.5
4. The administration or heads boost in morale and motivation when employees understand how their contributions help the company achieve its goals	3.66	Highly Practiced	3.5
5. There is an Interdepartmental coordination and cooperation in the university	3.66	Highly Practiced	3.5
Overall Weighted Mean	**3.65**	**Highly Practiced**	

Moreover, Association for Institutional Research, Education and the National Association of College and University Business Officers strongly believe that using data to better understand our students and our own operations paves the way to developing new, innovative approaches for improved student recruiting, better student outcomes, greater institutional efficiency and cost containment, and much more (McKenzie, 2019). This is important as in a case study in Austria revealed just how crucial communication is when laying the foundation for quality assurance. It found that such a system is not merely a set of processes and instruments, but a much broader structure that facilitates dialogue, feedback and parameters for managing relationships across the different levels of the University (UNESCO, 2016). For communication, the respondents reported that their universities highly practiced the use of an official line of communication so that all employees know about updates, policy changes, and new processes (Item No. 5, $\bar{x} = 3.68$). Suthers (2017) argues that because of the rapid changes in technology and overall growth of the healthcare industry, communication channels should be well defined, effective, and efficient. These practices might make employees aware of changes in policies, their roles in disaster drills, upcoming events, and any information that may affect day to day operations in the facility.On the other hand, for communication it is the involvement of employees in decision-making that garnered the lowest average ($\bar{x} = 3.59$). This means that the as assessed by the respondents, this indicator is still highly practiced but that it is less practiced than others. Involving employees in the decision-making process not only empowers them to contribute to the success of an organization, but also saves the company time and money in increased productivity and reduced outsourcing (Anderson, 2019).

Table 11. Summary of Responses perception of the respondents towards ISO 9001 Certification Practices of SUC's

	Sub Categories on ISO 9001 Certification	**OverallWeighted**	**Qualitative**	**Rank**

	Practices of SUC's	Mean	Interpretation	
1	Customer Clientele Focus	3.60	Highly Practiced	7.5
2	Total Employee Commitment	3.60	Highly Practiced	7.5
3	Process Approach	3.64	Highly Practiced	5
4	Integrated System	3.66	Highly Practiced	2.5
5	Systematic and Strategic Approach	3.66	Highly Practiced	2.5
6	Continual Improvement	3.68	Highly Practiced	1
7	Fact-Based Decision Making	3.62	Highly Practiced	6
8	Communication	3.65	Highly Practiced	4
	Grand Mean	**3.64**	**Highly Practiced**	

The respondents assessed highly practiced in all dimensions or subcategories of ISO 9001 Certification Practices of SUC's particularly on Continual Improvement manifested on the high overall mean value of ($\bar{x}$ =3.68) and ranked 1st; Integrated System and Systematic and Strategic Approach, with equal mean of ($\bar{x}$=3.66) and ranked 2.5th respectively; Communication, ($\bar{x}$=3.65) and ranked 4th; Process Approach, ($\bar{x}$=3.64) and ranked 5th; Fact-Based Decision Making, ($\bar{x}$=3.62) and ranked 6th; while for Customer clientele Focus and Total Employee Commitment, with equal mean of ($\bar{x}$=3.60) and ranked 7.5th respectively. The computed grand mean on the responses towards subcategories of ISO 9001 Certification Practices of SUC's was 3.64 with qualitative interpretation of highly practiced.

3. Quality Service Practices among the SUC's as assessed by the respondents

3.1 Academics

Table 12 shows that the quality practices of the universities in terms of academics is very evident ($\bar{x} = 3.37$).

This is in keeping with research findings that there is a positive impact for the application of the principles of total quality management on the efficiency of academic performance in universities (Mashagba, 2018). Among the most evident practices of universities in the present study are Items No. 4 and 6. Item No. 4 refers to the review of students' understanding of the admission requirements, program content and context, graduation requirements, and their responsibilities and authorities, through interviews and surveys ($\bar{x} = 3.42$). State universities, like other higher education institutions in the country and abroad conduct orientations especially for freshmen. According to Svensen (2017) claims that orientations usually provide time prior to the academic year beginning to allow first-year students to meet their peers, better understand the transition into college, become familiar with campus, feel comfortable with interacting with faculty, staff and administration, and learn more about one's self and others in a large or small group setting. Also, a very evident practice among the state universities involved in this study is the assessment of the faculty members' ability to meet the requirements ($\bar{x} = 3.42$). This conforms to the findings of the National Research Council (2003) which emphasizes the need for ongoing formative evaluation that offers faculty members ample opportunities, resources, and support systems for improving their teaching prior to any summative evaluations that might be rendered by the department or institution. At the other end of the spectrum under academics, the indicator that obtained the lowest average is the purchase of hardware and software required for the proper delivery of programs , courses and research projects ($\bar{x}$=3.29).

Table 12. Perception of the respondents towards Quality Service Practices of SUC's In terms of Academics

Academics	Weighted Mean	Qualitative Interpretation	Rank
1. Define and document the industry and government requirements with respect to undergraduate and graduate programs offered	3.37	Very evident	7
2. Accreditation of programs by regulating bodies	3.37	Very evident	7
3. Review of contracts with the employers participating in co-operative programs offered by the faculty	3.33	Very evident	11
4. Review of students' understanding of the admission requirements, program content and context, graduation requirements, and their responsibilities and authorities, through interviews and surveys.	3.42	Very evident	1.5
5. Review of industry and government-sponsored research contracts, such as research projects.	3.37	Very evident	7
6. Assessment of the faculty members' ability to meet the requirements.	3.42	Very evident	1.5
7. Purchase of hardware and software required for the proper delivery of programs, courses and research projects;	3.29	Very evident	12
8. Appoint academic and support staff, including professors, teaching and research assistants/ associates, administrative and technical staff.	3.39	Very evident	3.5
9. Design, apply, review, validate, change and improve the marking and grading schemes.	3.36	Very evident	10
10. Assessment of the scheduling of inspection and tests activities	3.37	Very evident	7

11. Design and review of term tests, quizzes, projects, case studies and other forms of inspection	3.39	Very evident	3.5
12. Prepare and review curricula aligned to CMO's.	3.37	Very evident	7
Overall Weighted Mean	**3.37**	**Very evident**	

While this falls under the description very evident, it is still the lowest among indicators in academics. According to Sagcal (2018), the National Academy of Science and Technology states that the country is not investing sufficient resources in science and technology (S&T) human resource development, research and development (R&D), and physical infrastructure. Today, we lack even the minimum number of scientists and technologists needed for innovation-driven development.

3.2 Faculty

Table 13 shows the Quality Service Practices of SUC's terms of Facultyis very evident ($\bar{x} = 3.32$). This means that the process of ISO 9001:2015 Certification led to quality improvements in the faculty.

Table 13.Perception of the respondents towards Quality Service Practices of SUC's in terms of Faculty

Faculty	Weighted Mean	Qualitative Interpretation	Rank
1. Development and training of faculty, research assistants, and support staff.	3.35	Very evident	5.5
2. Student curriculum counselling	3.20	Evident	12
3. Faculty member's maintenance of professional competence	3.31	Very evident	9
4. Research staff development and training, including sabbatical leaves.	3.27	Very evident	10.5
5. Faculty promotion and tenure	3.27	Very evident	10.5
6. Use of a suitable equipment and a suitable working environment	3.34	Very evident	5.5
7. Demonstrate faculty ability to translate customers' specifications into appropriate design of programs/ courses offered, individual student curricula and research.	3.35	Very evident	3
8. Design control of the individual student curricula, including the statement of minimum paths to graduation, effective and compulsory courses, responsibility and authority of students, and defining the student's input into the design process	3.35	Very evident	3
9. Identification of adequate teaching equipment	3.33	Very evident	7.5
10. Ensure proper maintenance of teaching equipment	3.34	Very evident	5.5
11. Identification of proper teaching and learning environment	3.36	Very evident	1
12. Review of equipment, facilities and services admissibility for the course	3.33	Very evident	7.5
Overall Weighted Mean	**3.32**	**Very Evident**	

This is consistent with the results of a study which found that ISO 9001:2008 quality management systems had significant influence on teaching on academic staff's delivery in teaching (Andiva & Simatwa, 2018). Among the most evident practices of faculty member in the respondent state universities with ISO Certification is the identification of proper teaching and learning environment ($\bar{x}$ =3.36). This reflects the emphasis placed upon the learning environment in the success of any educational endeavor. This belief on the need to identify and provide a good environment is deeply rooted in research. Students learn better when they view the learning environment as positive and supportive (Dorman, et al., 2006). A positive environment is one in which students feel a sense of belonging, trust others, and feel encouraged to tackle challenges, take risks, and ask questions (Bucholz & Sheffler, 2009). Such an environment provides relevant content, clear learning goals and feedback, opportunities to build social skills, and strategies to help students succeed (Weimer, 2009).There is an indicator under the quality practice in faculty that was only evident (Item No. 2). The provision of faculty members of student curriculum counselling was not very evident ($\bar{x} = 3.20$). It is true that state universities do provide student curriculum counselling and this is usually done by the guidance and counselling offices. But apparently, this is not as institutionalized as one expects it to be. This is consistent with research findings that highlight constraints in the availability of college counselling, differences in the availability of college counseling across schools, and the influence of schools, districts, higher education institutions, and states on the availability and nature of college counselling (Perna, 2008). Each of the respondent universities had unique contexts that could have led to limited curriculum counselling.

3.3 Research

Table number 14 summarizes the indicators of quality practices under research in state universities as assessed by faculty members and students. Results indicate that quality practices in research are very evident ($\bar{x} = 3.30$).The indicator under research that had the highest average was planning, implementing, and reviewing of critical quality characteristics, suitable process parameters, equipment, environment, facilities and services ($\bar{x} = 3.30$). This indicator is

part Nguyen & Gramberg's (2017) six main university strategic research planning tasks that are derived from the literature on strategic planning.

Table 14. Perception of the respondents towards Quality Service Practices of SUC'sin terms of Research

Research	Weighted Mean	Qualitative Interpretation	Rank
1. Identification of critical quality characteristics for a research project	3.31	Very evident	5.5
2. Identification of research process parameters to be monitored and controlled	3.27	Very evident	12
3. Planning of the methods for monitoring and control of critical quality characteristics and suitable research process parameters	3.30	Very evident	8.5
4. Identification of adequate equipment required for the research project	3.28	Very evident	11
5. Ensuring proper maintenance of research equipment	3.31	Very evident	5.5
6. Identification of proper research environment	3.32	Very evident	2.5
7. Review of equipment, facilities and services admissibility for the research project	3.31	Very evident	5.5
8. Research project quality planning	3.32	Very evident	2.5
9. Research project delivery	3.31	Very evident	5.5
10. Monitoring, measuring and control of critical quality characteristics and research process parameters	3.29	Very evident	10
11. Planning, implementing and reviewing of critical quality characteristics, suitable process parameters, equipment, environment, facilities and services	3.33	Very evident	1
12. Allocating budget for every faculty conducting research	3.30	Very evident	8.5
Overall Weighted Mean	**3.30**	**Very evident**	

These include identifying the university's current research mission, goals and strategies; external analysis; internal analysis; formulating strategies; implementing strategies; and evaluating results. The fact that this indicator is very evident suggests that the universities participating in this study are invested in strategic research practices. But on the other hand, the indicator with the lowest average in terms of research is the identification of research process parameters to be monitored and controlled ($\bar{x} = 3.30$). This is still very evident but it offers room for improvement across the participant universities. There are times when projects, like research, which remain unfinished or take too long to finish because there is not a monitoring plan that is established. It is therefore interesting to note that monitoring and/or controlling of research is evident. The World Health Organization (2014) suggests that the monitoring can help the following to be achieved: stating how achievements of the programmed /project will be measured; documenting consensus, thereby encouraging transparency, accountability and responsibility; guiding implementation of M&E; and preserving institutional memory.

3.4 Student Services.

Table 15 shows that the respondents thought that good practices in their universities in terms of student services is very evident ($\bar{x} = 3.31$).

Table 15. Perception of the respondents towards Quality Service Practices of SUC's interms of Student Services

Student Services	Weighted Mean	Qualitative Interpretation	Rank
1. Selecting standard that applies to the identification, collection, indexing, access, filing, storage, maintenance and disposition of quality records	3.30	Very evident	10
2. Issuing and safekeeping of faculty and staff identification cards	3.31	Very evident	8
3. Handling department and course numbers	3.33	Very evident	2
4. Issuing and distributing registration of calendars of students	3.32	Very evident	4.5
5. Assigning numbers and codes to research projects	3.29	Very evident	11
6. Monitor achievement of minimum standards	3.28	Very evident	12
7. Use of a suitable equipment and a suitable working environment	3.32	Very evident	4.5
8. Implementing students' privileges.	3.31	Very evident	8
9. Putting students at the center of the system.	3.34	Very evident	1
10. Harmonizing national standards with international framework.	3.31	Very evident	8
11. Communicating publicly the learners' performance data and other feedback like satisfaction survey	3.32	Very evident	4.5
12. Re-shaping academic providers satisfying services to students as consumers.	3.32	Very evident	4.5
Overall Weighted Mean	**3.31**	**Very evident**	

This means that the process of ISO 9001:2015 Certification led to quality improvements in the student services. Faculty members and students from the respondent universities in this study believed that students are at the center of the system (Item No. 5, $\bar{x}$=3.34). This is a positive development for state universities in light of the overwhelming literature that points to its many benefits to learners regardless of educational level. Dano-Hinosolango & Vedua-Dinagsao (2014) argues that the more learner-centered the teacher is the more learning skills and strategies are developed among the students. This leads to the enhancement and reinforcement of some areas to be improved using Bekele and Melesse's (2010) framework on student-centered approach in teaching students. However, despite being still very evident, Item No. 12, which is the monitoring of the achievement of minimum standards obtained the lowest mean ($\bar{x} = 3.28$) from the assessment of faculty members and students. According toPaqueo et al. (2012) points out that one of the initiatives today is the rationalization of the structure of public higher education and improving the budget to ensure resource mobilization and cost efficiency. This means that there must be minimum standards that state universities must attain to justify its existence. One of the means by which the state universities do this is by subjecting themselves to ISO accreditation. But the fact that this conformance to the minimum standards garnered the lowest mean signifies the need to improve the quality of student services.

3.5 Administration

Table 16 summarizes the indicators of quality practices under administration in state universities as assessed by faculty members and students. Results indicate that quality practices in this category are very evident ($\bar{x} = 3.36$).And among the 12 indicators under administration, there were three indicators which tied for the highest mean. These are Items 8, 10, and 12 ($\bar{x} = 3.37$). Item 8 is about the demonstration of leadership and commitment to quality products and services.

Table 16. Perception of the respondents towards Quality Service Practices of SUC'sin terms of Administration

Administration	Weighted Mean	Qualitative Interpretation	Rank
1. Ensures that Quality Management System is fully implemented	3.36	Very evident	5
2. Ensures that all personnel understand that system, quality policy and objectives	3.36	Very evident	5
3. Implements continuous improvement of processes, products and services	3.34	Very evident	10.5
4. Implements planning, doing and checking cycle in the operation	3.35	Very evident	8
5. Ensure that system on control are observed	3.35	Very evident	8
6. Focuses relentlessly on improving teaching and learning with very effective professional development of all staff.	3.34	Very evident	10.5
7. Observes and implements regulatory and statutory policies of the government	3.36	Very evident	5
8. Demonstrates leadership and commitment to quality products and services	3.37	Very evident	2
9. Ensures customer satisfaction and benefits	3.35	Very evident	8
10. Encourages participation of stakeholders towards long-term benefits of the institution and the community	3.37	Very evident	2
11. Drives the need for efficiency and effectiveness of provision and corporation of the organization	3.33	Very evident	12
12. Develops strategic direction and initiatives towards quality culture	3.37	Very evident	2
Overall Weighted Mean	**3.36**	**Very evident**	

Item 10 is the encouragement of the participation of stakeholders towards long-term benefits of the institution and the community. Item 12, meanwhile is the development of strategic direction and initiatives towards quality culture. While at first the indicators are disjointed, closer inspection would reveal the importance of leadership in the pursuit of a quality culture. The impetus towards quality processes begins with the leadership of any organization, but more so for universities. An Indonesian study had results which showed that there was a positive significant influence on quality leadership on organizational performance. In addition, there is a positive significant influence too on staff quality commitment to organizational performance through quality leadership. So as improving organizational performance, the elements of higher education leadership must be more quality oriented and also need to be supported by academics whose are committed to quality (Arif et al., 2018).

3.6. Linkages and Networking

Table 17 shows that the respondents thought that good practices in their universities in terms of linkages and networking is very evident ($\bar{x} = 3.35$). This means that the process of ISO 9001:2015 Certification led to quality improvements in the linkages and networking. One of the key indicators under linkages and networking that was very

evident is the sharing of learning resources and experiences ($\bar{x} = 3.40$). One example of this is the use of OER's or Open Educational Resources. UNESCO (2017) claims that he first thing that happens with these shared resources is that equitable access to educational resources goes up. Every single student can have access to all of the educational resources that have been designed for them to be successful in the class on day one. This was followed by the strengthening of the social mission of the university ($\bar{x} = 3.39$). This is important because at the end of the day, universities are not just institutions for learning. Respondents apparently observe the practices of their universities through their extension programs. In the study of Bokhari (2017) states that universities are considered an essential pillar of society, because they play a pivotal role in elevating awareness regarding social responsibility among its students, staff members and other employees.

Table 17, Perception of the respondents towards Quality Service Practices of SUC's in terms ofLinkages and Networking

Linkages and Networking	Weighted Mean	Qualitative Interpretation	Rank
1. Sharing of learning resource and shared experience	3.40	Very Evident	1
2. Enhanced professional support through programs adapted by the university	3.35	Very Evident	7
3. Works collaboratively with other faculty from other institutions to achieve common goal	3.37	Very Evident	4
4. Establish trust, harmony, openness collaboration culture enhancing	3.32	Very Evident	9.5
5. Ensure a just and fair practice to undertake innovation and information or breakthrough in different disciplines	3.32	Very Evident	9.5
6. Sharing of physical facilities and student replacement for the advantage of the institutional community	3.29	Very Evident	12
7. Ensure the acceleration of the social impact of the people and organizations in the community	3.33	Very Evident	8
8. Reinforce innovation and research	3.31	Very Evident	11
9. Create authentic visions and strategies	3.36	Very Evident	6
10. Strengthen social missions of the university	3.39	Very Evident	2
11. Improve deliveries sustainability and relevance of the university	3.37	Very Evident	4
12. Clear and tangible benefit for the university in any network arrangement.	3.37	Very Evident	4
Overall Weighted Mean	**3.35**	**Very Evident**	

fulfilling its social mission, universities can position themselves as competent partners of society and strengthen new cooperation's with other civil society organizations (Berghaeuser&Hoelscher, 2020).Meanwhile, a recurring theme in the different indicators of quality practice is the sharing of physical facilities and student replacement for the advantage of the institutional community($\bar{x} = 3.29$). Despite undeniable efforts of the different state universities, it appears that there are still needs to be done to improve the sharing mechanism for physical facilities as best practices for linkages and networking.

4. Significant Different on Quality Service Practices According to Present Status of SUC's

Table 18 shows the results of the F-test conducted on the means of the subcategories on the Present Status of SUC's on the Quality Service Practices as the grouping variable.

Table 18. Analysis of variance to test Differences in the Present Status of SUC's on the Quality Service Practices as the grouping variable

Anova: Single Factor, SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
Institutional Accreditation	4	4	1	4
Number of Programs	4	148	37	106
Programs Offered as Center of Excellence	4	0	0	0
Programs Offered as Center of Development	4	0	0	0
SUC Leveling	4	4	1	2
Number of Student Enrolled	4	10	2.5	1
Number of Faculty	4	8	2	0
Number of Non-Teaching Staff	4	10	2.5	1

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	4492	7	641.7143	45.03258	2.79E-12	2.422629

Within Groups	342	24	14.25
Total	4834	31	

Decision: Reject the Null Hypothesis: (There is significant difference)

It can be gleaned from the table that there was significant difference in the assessment of the respondents as regard to the subcategories/dimensions on the Present Status of SUC's on the Quality Service Practices as the grouping variable manifested on the computed F-value of 45.03258 which is greater than F-critical value of 2.422629, therefore the null hypothesis is rejected.

5. Significant Differences on the Assessment of IS0: 9001 Certification Practices of SUC's in Region III.

Table 19. Analysis of Variance to determine differences on the dimensions towards Subcategories or dimensions of ISO 9001 practices of SUC's as grouping variables

Anova: Single Factor, SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
Costumer Clientele Focus	5	18	3.6	0.00035
Total Employee Commitment	5	18.02	3.604	0.00038
Process Approach	5	18.17	3.634	0.00158
Integrated System	5	18.27	3.654	0.00073
Systematic and Strategic Approach	5	18.29	3.658	0.00082
Continual Improvement	5	18.41	3.682	0.00067
Fact Based Decision Making	5	18.08	3.616	0.00343
Communication	5	18.25	3.65	0.00115

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	0.0291575	7	0.004165	**3.6578**	0.00519	**2.31274**
Within Groups	0.03644	32	0.001138			
Total	0.0655975	39				

Decision: Reject null Hypothesis: There is Significant Difference

Table 19 shows the result of the Analysis of Variance conducted on the means of the subcategories of ISO 9001 practices of SUC's as the grouping variable. There was a significant difference on the assessment of the respondents towards dimensions on ISO 9001 practices of SUC's as grouping variables manifested on the computed F value of 3.6578 which is higher than (>) the F-critical value of 2.31274. This contradict the null hypothesis that there is no significant difference on the assessment of teachers and student respondents on the ISO 9001 Certification practices of SUC's.

6. Test of Significant Differences on the Quality Service Practices among SUC's

Table 20. **Analysis of variance to test Differences in the subcategories of Quality Service Practices of SUC's as grouping variables**

Anova: Single Factor, SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
Academics	12	40.45	3.370833	0.001263
Faculty	12	39.8	3.316667	0.002242
Research	12	39.65	3.304167	0.000299
Student Services	12	39.75	3.3125	0.000275
Administration	12	40.25	3.354167	0.000172
Linkages & Networking	12	40.18	3.348333	0.001161

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	0.043444	5	0.008689	**9.632699**	6.15E-07	**2.353809**
Within Groups	0.059533	66	0.000902			
Total	0.102978	71				

Decision: Reject the Null Hypothesis: (There is significant difference)

Table 20 shows the result of the F-test conducted on the means of the subcategories of Quality Service Practices among SUC's as grouping variable. It can be gleaned from the table that there was a significant difference in the assessment towards subcategories of Quality Service Practices of SUC's as grouping variable manifested on the

computed F-value of 9.632699 which is greater than F-critical value of 2.353809, therefore the null hypothesis is rejected. This means that the null hypothesis that there is no significant difference in the assessment of the respondents as far as the quality service practices of SUC's is concerned is hereby rejected.

7. Significant Relationship Between ISO 9001 Certification and Quality Service Practices of SUC's.

Table 21on the next page shows the result of the Pearson Product MomentCoefficient of Correlation (r) conducted to determine relationship between the Quality Service Practices as well as the ISO 9001 Practices of SUC's.

Table 21. Pearson Product Moment Coefficient of Correlation to test relationshipbetween the ISO 9001 Certification Practices and the Quality Practices of State Colleges and Universities (SUC's)

Sources of Correlations		r-value	Decision
Customer/ Clientele Focus	Pearson Correlation	+.672**	Positive Moderate Relationship
	Sig. (2-tailed)	.000	**Significant**
Total Employee Commitment	Pearson Correlation	+.682**	Positive Moderate Relationship
	Sig. (2-tailed)	.000	**Significant**
Process Approach	Pearson Correlation	+.747**	Positive Moderate Relationship
	Sig. (2-tailed)	.000	**Significant**
Integrated System	Pearson Correlation	+.739**	Positive Moderate Relationship
	Sig. (2-tailed)	.000	**Significant**
Systematic and Strategic Approach	Pearson Correlation	+.731**	Positive Moderate Relationship
	Sig. (2-tailed)	.000	**Significant**
Continual Improvement	Pearson Correlation	+.735**	Positive Moderate Relationship
	Sig. (2-tailed)	.000	**Significant**
Fact-Based Decision Making	Pearson Correlation	+.772**	Positive Moderate Relationship
	Sig. (2-tailed)	.000	**Significant**
Communications	Pearson Correlation	+.764**	Positive Moderate Relationship
	Sig. (2-tailed)	.000	**Significant**

There is positive moderate relationship on all parameters particularly on Customer/Clientele Focus manifested on the computed (r=+.672**); Total Employee Commitment (r=+0.682); Process Approach (r=+0.747**); Integrated System, (r=+0.739); Systematic and Strategic Approach, (r=+0.731**); Continual Improvement, (r=+0.735**); Fact-based Decision Making, (r=+0.772**); and Communication, (r=+0.764**). The computed Sig. (2-tailed) values of 0.000 for all parameters indicates less than (<) 0.05 alpha level of significance, therefore the null hypothesis is rejected hence there is significant relationship. Improved ISO practices have a corresponding moderate improvement in the quality service practices.

This is intuitive. The primary purpose of ISO certification in the state universities is the improvement of the processes. It is but normal to expect that this could lead to better services to the students and to the other university clientele. This does not necessarily mean that the high incidence of ISO practices would automatically cause improvements in the services. But the likelihood that the quality services will improve gets higher as the ISO indicators become more highly practiced. The above results parallel the findings of Afrikano et al (2019) that the main benefits of the implementation of the QMS in HEIs were improvement of the quality of teaching, student satisfaction, confidence of students and other stakeholders, student assessment, and teacher competence. But the overarching intent of the ISO QMS certifications is the improvement of quality of services to its clientele. There is now an impetus for what Rezeanu (2011) terms as stimulative policies. This has created a sort of domino effect among private and public colleges to aspire for ISO 9001 Certifications. ISO 9001 has proven to be the popular management system (Yaya, Marimon, & Casadesus, 2014). It is a set of the requirements for a quality management system (QMS) with a tested framework based on "PDCA" cycle (Plan- Do-Check-Act cycle) that causes this standard to effectively improve organizations' performance.

8. Intervention Program to increase Quality Service of SUC's. In view of the significant findings of this study, this intervention program is being proposed:

Objectives:

1. To improve the research culture of the universities;
2. To establish a clear criterion on the assessment of key indicators of quality service practice and ISO certification practices;
3. To have a unified criterion for the attainment of both ISO Certification standards and better front-line services.

Table/Matrix 22. Proposed Intervention Program for Improving Quality Service Practices

Findings	Proposed Action	Target Date	Persons Responsible
Strong Positive Correlation of ISO	1. Harmonization of Criteria and Indicators of ISO 9001 and the University Practices	August 2023	Top Management Audit Team

9001 Practices and Quality Service Practice	2. Advocacy Program on the Quality Practices of the University 3. Development of Monitoring Tools in Both ISO 9001 Practices and Quality Service Practice 4. Conduct of Regular Audits and Dissemination of Results		Monitoring Team
Inconsistency of Assessment of Teachers and Students as to the different indicators	5. Orientation of the Students on the ISO Processes 6. Development of a Rubric for the Assessment of Quality Practices 7. Involvement of the Students in the Development of Assessment and Audit Tools	October 2023	Communications Team Continuous Improvement Group
Room for Improvement in the Area of Research	8. Development and Dissemination of a Clear Research Agenda 9. Involvement, Engagement, and Actual Conduct of Research by Top Management 10. Incentivization of Research Efforts 11. Increased Research Colloquia and Congresses	Year Round	College Deans Faculty Members Graduate Students

CONCLUSIONS

Based on gathered data and findings of the study the researcher has formulated the following conclusions:

1. The state universities generally were progressing towards Level III institutional accreditation, had been in SUC Level III in the past two years, were not recognized as either Center of Excellence or Development, had large number of student enrollment and adequate number of faculty members and non-teaching personnel.
2. The respondents assessed indicators under ISO 9001 Certification practices were highly practiced.
3. The respondents assessed very evident on the indicators for Quality Service practices.
4. There was significant difference in the assessment of the respondents as regard to the subcategories/dimensions on the Present Status of SUC's on the Quality Service Practices as the grouping variable.
5. There was a significant difference on the assessment of the respondents towards dimensions on ISO 9001 practices of SUC's as grouping variables
6. There was a significant difference on the assessment of the respondents towards dimensions on ISO 9001 practices of SUC's as grouping variables
7. There was a positive moderate relationship between the Quality Service practices and the ISO 9001 practices of the SUC's.
8. An Intervention program was proposed to enhance Quality Services of State Universities in the Region.

RECOMMENDATIONS

Based on the gathered data and finding of the study, the researcher has formulated the following recommendations:

1. Further research on the ISO 9001:2015 practices and utilizing mixed methods may be conducted to validate the findings of this study. Qualitative methods can enrich the understanding obtained from data in the study.
2. The proposed intervention plan is encouraged to be implemented which aims to improve the quality service practices of the state universities may be adopted by the respondent universities.
3. The university is encouraged to establish a comprehensive and intensive research program by establishing an in-service training for faculty enhancement on research and statistics capabilities.
4. As the need for the leadership of the universities to vigorously pursue innovative practices through research, the top management should consider the provision of incentives to research aimed at generating institutional knowledge that would lead to better services.
5. For future researcher/s, a replication of the study with in-depth and wider in scope in order validate the salient findings obtained in the study.

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