

## Level of Awareness and Extent of Practice of Quality Management System in Negros Oriental State University (NORSU), Philippines

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### ABSTRACT

*This study sought to determine the level of awareness and extent of practice of Quality Management System in Negros Oriental State University (NORSU). The study used the descriptive quantitative method. It adopts a questionnaire from ISO 9001:2008 Quality Management System. The findings indicate that majority of the respondents are in their early adulthood stage, male-dominated who are holding Instructor rank positions in the University and have no relevant master's degree qualifications in their field of specialization. In conclusion, the awareness level and extent of practice of Quality Management System (QMS) in NORSU was perceived as moderately aware and moderately practice by the personnel, and have significant difference between the awareness level and extent of practice. As a recommendation, a proposed strategies be implemented to solve the problems pertaining to Quality Management System.*

**Keywords:** Quality Management System, Total Quality Management, Quality, Level of Awareness, Extent of Practice, NORSU.

### INTRODUCTION:

Quality is the pursuit of every human endeavor. With this new era of globalization, quality has been the goal of industries, private and public agencies, education, and other sectors in the community. High quality and relevant higher education is able to prepare to equip students with information, aptitudes and transferable competencies they ought to succeed after graduation, inside a high quality learning environment which perceives and underpins great teaching (Quality and relevance in higher education).

In the Philippines, there are a total of 436 state colleges and universities including satellite campuses (wikepedia, n.d.) and out of this number only 11 State Universities and Colleges (SUCs) have ISO certification (Mancenido, 2014) which means that there are still many SUCs in the country that are not yet ISO certified.

The main thrust of the tertiary education through Commission on Higher Education (CHED) is towards quality and excellence. In order for the institution to achieve this, it should conform to the standards through certification and accreditation. It is sad to note that many of the State Colleges and Universities (SUC's) are not yet ISO certified.

Educational Institution like Negros Oriental State University looks for persistent enhancement in school operations and trade exhibitions applying different means for improving quality, reducing cost and increasing productivity. One of which includes the Total Quality Management System (TQM). (Willis & Taylor, 2015) asserts that the endeavors to embrace the Total Quality Management (TQM) philosophy are spreading to institutions of higher education. The elemental purpose of TQM is to serve the clientele way better. One of the foremost critical clientele of the college or university are the firms that hire the school's graduate.

Consequently, the researcher believes that most of the colleges in Negros Oriental State University (NORSU) produces goods and competitive graduates. However, there is no enough evidence to claim how really good and competitive these colleges are.

Anchored on the University's collective desire in giving excellent quality instruction and in adherence to (Administrative Order No. 161) entitled "Institutionalizing Quality Management System in Government" as amended by (Executive Order 605) "encouraging Local Government Units (LGUs), State Universities and Colleges (SUCs), the Judiciary, the Legislator and the Constitutional Offices to establish ISO-Quality Management Systems and pursue for certification" (EO 605,n.d.), thus, this study aims to identify the level of awareness and extent of practice of Quality Management System in Negros Oriental State University (NORSU) employees for ISO 9001:2008 Quality Management System. The output of this study will be basis in the preparation for ISO 9001:2008 certification.

## LITERATURE REVIEW:

This study utilized the principles of Quality Management System in determining and analyzing the awareness and practice of quality management. Some literature and studies with bearing to the study have been examined. Quality management system (QMS) as a formalized system that documents processes, procedures, and responsibilities for achieving quality policies and objectives (What is QMS?, n.d, QMS,n.d.). On the other hand, (Hammar, 2017) also defines quality management system as a set of internal rules that are defined by a collection of policies, processes, documented procedures and records. He further added that this system characterizes how a company will accomplish the creation and conveyance of the item or benefit they give to their clients. When execute in the company, the QMS has to be particular to the item or benefit it give, so it is critical to tailor it to the needs. However, in order to help ensure you do not miss any components of a good system, some common rules exist within the frame of ISO 9001 (Quality Management System- Requirements), which is intended to assist standardized how a QMS is outlined.

QMS framework is the core of any quality and compliance handle. It could be an administrative necessity that FDA/worldwide administrative reviewers and ISO evaluators consider basic. A computerized QMS framework decreases review time and discoveries, and diminishes hazard of item reviews. It makes strides item quality and security, increments client fulfilment, and guarantees FDA and ISO compliance (Quality Management System).

QMS isn't restricted to exercises performed by a Quality group. In reality, your quality team's exercises are as it were a scanty rate of things that are a portion of QMS. A gigantic chunk of it is executed by diverse forms and capacities. As examined as of now, QMS is credited to all offices of an organization and expands to providers too. The quality group empowers and bolsters effective arrangement of QMS in an organization. QMS may be an instrument and the quality group could be a driver that employs the instruments for the improvement of the organization (What is QMS, 2013).

(Faganel & Dolinsek, 2017) states that in quality management in higher education have been created for a number of a long time to improve professional standards. A few endeavors have been made to create strategies that would be demonstrated on ISO 9000 and TQM, but a few of these models were created to assess a business process with the quality field. Education is trying to look for management concept that would coordinate the collective endeavors of all managers and employees towards fulfilling customers' expectations by continually improving activities. One of the adaptable and simple to execute models is related to the European Foundation for Quality Management (EFQM). QMS and other quality systems in Higher Education (HE) required by the accreditation bodies in view of programs accreditation are required for the confirmation of quality and administration leadership.

Reasons why quality in learning and teaching is mainly current topic include the rapid social change that demands quick flexibility adaptability from all institutions, education extension in combination with expanding social differences, and last but not the least, the Bologna Process, which emphasizes quality and quality assurance in higher education as an indispensable foundation for renewal processes and the internationalization of university systems. In order to do the demands of the Bologna Reform justice, it suggests that universities create and unceasingly further develop a comprehensive QM system. Furthermore, appropriate steering processes and principles with regards to decision skills, responsibilities, and processes should be applied (Quality Management Systems (QMS) Definition2017).

Getting an accreditation is an indicative of a scrupulous, effective and well run organization that takes the issue of quality seriously at all levels of operation both internally and externally. It can greatly benefit the business by: increasing the chances of success when tendering for new contracts, supporting the case when applying to be preferred contractor, giving up tremendous competitive advantage over those without ISO certification, enhancing the professional status within the specialized arena, ensuring a higher retention rate of the existing customers, and helping in the reduction in the company insurance premiums (Gaining Who needs ISO 9001, n.d.).

While change is imperative to make the processes more compelling and effective, thus saving time and cash, it

serves a purpose for the employees doing the job. First, as a portion of the improvement team that studies and enhances the processes, these employees will find greater job satisfaction. Learning and developing the skills to perform process improvements is however another skill that can improve the job satisfaction of employees through all levels of the company.

Secondly, enhancement to the method will perpetually lead to enhancements of the jobs performed. The tasks that employees do will become easier to do and often inherently safer for the employees. Improved safety and simpler work assignments can also improve the satisfaction that an employee has with their job and reduce workplace accidents and injuries. A safer employee may be happier employee (India, 2017).

ISO certification is not just suitable for bigger organizations but also small businesses that will benefit from adopting efficient Quality Management Systems that will save time and cost, improve efficiency and ultimately improve customer relationships. Some of the benefits it can give to the organization as follows: provides senior management with an efficient management process, sets out areas of responsibility across the organization, mandatory if you want to tender for some public sector work, communicates a positive message to staff and customers, identifies and encourages more efficient and time saving processes, highlights deficiencies, reduces your costs, provides continuous assessment and improvement, and marketing opportunities. On the other hand, the following are the benefits the customers: improved quality and service, delivery on time, right first time attitude, fewer returned products and complaints, and independent audit demonstrates commitment to quality (Benefits of ISO 9001, 2010); (We're ISO); (ISO 9001).

(Stojanovic, 2015) in his article entitled "Should universities implement ISO 9001?", said that ISO 9001 although is applicable for all organizations, its strategic plan 2011-2015 failed to identify education as sector where ISO standards provide benefits. Aware of this problem, the ISO published the Internal Workshop Agreement (IWA) 2 Quality Management Systems which are guidelines for the application of ISO 9001 in education. This guidelines helps educational institutions including higher education to successfully implement ISO 9001 and achieve adequate benefits.

Furthermore, (Stojanovic, 2015) added that "the education and training world is losing much of its special status, and is being considered more and more like an ordinary economic sector". He added that schools, universities, and training providers are gradually expected throughout to perform at high level, behave professionally, and provide quality services. He added that there were two important trends that might be observed in this regard: (1) "external demands (from governments, students, employers, etc.) on the educational system are increasing wherein puts pressure on the deployment of resources and the efficiency of the organization"; and (2) "continuing education and training sector is becoming a more mature and established economic sector beside many other sector service sectors". These trends suggest that the education and training paradigms are shifting from supply-driven teaching to demand-led learning. Although many educators does not feel contented with these developments, they would seem to be inevitable. Certainly, similar customer-driven trends can be also be observed in other areas, like public services.

## **METHODOLOGY:**

### **Method:**

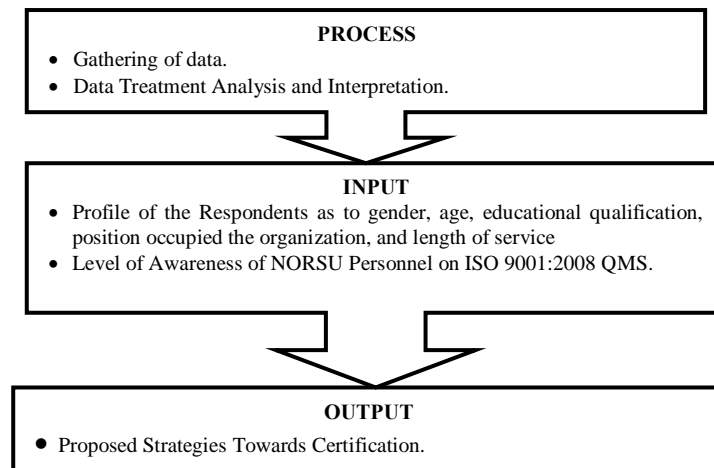
The study use the descriptive survey method. It adopted and utilized the ISO 9001-2008 Quality Management System questionnaire in determining the level of awareness and extent of practice of quality management system (QMS) in Negros Oriental State University (NORSU) and are administered to 168 respondents who are employees of University. The questionnaire was divided into two parts: Part one was the profile of the employee which included the age, gender, position occupied the organization, length of service and educational qualification and Part two focuses on Quality Management System QMS ISO 9001:2001, which assessed the awareness level and practices with regards to Management Responsibility, Human Resources, Product Realization and Measurement and, Analysis and Improvement.

After the data was collected, survey results were tabulated and analysed using the percentage/weighted mean and the two-tailed two-sample unequal variance t-test. The percentage and weighted mean were used in analyzing the responses in Part I of the questionnaire while Part II of the questionnaire used the one-tailed two-sample unequal variance t-test Summary.

### **Flow of Study:**

The study used system approach model: the input, process and the output of the study. It determined the profile of the respondents in terms of age, gender, job position, length of service and educational qualification as well as the level of awareness and practices of NORSU personnel towards QMS ISO 9001:2008 standard

certification. Its process include data gathered using statistical treatment in order to analyze and interpret the result. Lastly, the output is a proposed strategies towards certification.



**Figure 1: Presents the flow of the study.**

**RESULTS AND DISCUSSIONS:**

Data gathered for the study were presented, analyzed and interpreted in this chapter. The discussion consists of four parts: the first part is the demographic profile of respondents which looks into the gender, age, educational qualification, academic rank and length of service, and education level; the second part is on awareness level of NORSU personnel with regards to ISO 9001:2008 Quality Management System; the third part is one the data of extent of practice of NORSU personnel with regards to ISO 9001:2008 Quality Management System; and last part is on the summary of awareness level and extent of practice of ISO 9001:2008 Quality Management System.

**DEMOGRAPHIC PROFILE OF RESPONDENTS:**

**Table 1: Demographic Profile of Respondents**

Profile	<i>f</i>	%
<b>Sex</b>		
Male	107	63.39%
Female	61	36.31%
<b>Age</b>		
Above 51	24	14.29%
41-50	35	20.83%
31-40	51	30.54%
20-30	58	34.52%
<b>Degree</b>		
Bachelor (BS/BA)	90	54%
Masters (MA/MS)	55	33%
Doctorate	23	14%
<b>Rank</b>		
Instructor	93	55%
Assistant Professor	36	21%
Associate Professor	26	16%
Professor	13	8%
<b>Length of Service (in years)</b>		
More than 12	26	15%
10-12	43	26%
7-9	47	28%
4-6	18	11%
1-3	21	13%
Less than 1 year	13	7%

Table 1 shows the demographic profile of the respondents. Data reveals that male respondents dominate in the research population constituting 63.39% compared to female respondents with 36.31% only. A large proportion of the respondents belong to the age bracket 20-40 and 31-40 age brackets, while the remaining proportions are in 41-50 and 51 above age brackets which indicates that they belong to the early adulthood stage. More so, majority of the respondents have an educational qualification of Bachelor’s degree and whose academic rank is Instructor.

**Test of Significant Difference between Awareness Level and Extent of Practice of Quality Management System of the ISO 9001:2008**

A statistical test is carried out to determine whether there was any significant difference between the awareness level and extent of practice means. Using Two-tailed two-sample unequal variance t-test, it will test the hypothesis that was set up.

H<sub>0</sub> : There is no significant difference between two means

Using Microsoft Excel, p-value is equal to **0.020139** which is close to zero as shown in table 7.

**Table 2: Awareness Level and Extent of Practiced of Norsu Personnel on ISO 9001:2008 QMS**

Clause	Description	Awareness level	Verbal Description	Extent of Practice	Verbal Description
4	General Requirement (NORSU QMS)	2.94	Moderately Aware	2.55	Rarely Practiced
5	Management Responsibility	3.47	Usually Aware	2.87	Moderately Practiced
6	Human Resource	3.73	Usually Aware	3.01	Moderately Practiced
7	Product Realization	3.36	Moderately Aware	3.04	Moderately Practiced
8	Measurement, Analysis and Improvement	3.14	Moderately Aware	2.72	Moderately Practiced
	<b>Overall Mean</b>	<b>3.33</b>	<b>Moderately Aware</b>	<b>2.84</b>	<b>Moderately Practiced</b>
	<b>Standard Deviation</b>	<b>0.3036</b>		<b>0.2051</b>	
	<b>Significant Level</b>	<b>0.05</b>			
	<b>p-value (two-tail)</b>	<b>0.020139</b>			

Table 2 shows that the overall grand mean for Awareness Level was rated by respondents as *Moderately Aware* with numerical rating of 3.33 while the Extent of Practice was also rated by the respondents as *Moderately Practiced* with numerical rating of 2.84. This shows that respondents are not fully aware of Quality Management System of the ISO 9001:2008. This is the challenge of NORSU Administration how to improve the awareness level and its extent of practice. Since p-value of 0.020139 is lower than 0.05 significant levels, the hypothesis H<sub>0</sub> is rejected. This indicates that there is a significant difference between awareness level and extent of practice. It is also an indication that according to the respondents the school perceived these factors as important but failed on actual practice.

**Level of awareness and extent of practice of respondent groups related to ISO 9001:2008 QMS as to; General Requirements:**

A grand mean of 2.94 for general requirements indicates that only 58.8% of the total respondents are aware of ISO QMS. This shows that there is more work to be done in the part of NORSU administration in order to improve the ISO QMS awareness level. The grand mean of extent of practice is 2.55 which show that this clause is rarely practiced.

**Management Responsibility:**

Management Responsibility has a grand mean of 3.47 which indicates that respondents are usually aware.

However, the extent of practiced is only 2.87 which show that management responsibility of NORSU administration were not functioning effectively.

**Human Resource:**

Human Resource has a grand mean of 3.73 which has a highest grand mean. This means that respondents are usually aware. However, in the extent of practice of human resource is only 3.01 which suggest that top management of NORSU should focus on improvement of personnel competence.

**Product Realization:**

Product realization has a grand mean of 3.36 which indicates that 67.2 percent of the respondents are aware while the extent of practice of product realization is 3.04 which is equivalent to 60.8 percent. This shows that the awareness level and extent of practice are almost on the same level. Since the result is comparatively low, the top management of NORSU should do something in order to improve the result of product realization.

Measurement, Analysis and Improvement. Measurement, Analysis and Improvement has a grand mean of 3.14. This means that respondents are 62.8% aware. But the extent of practice of Measurement, Analysis and Improvement is only 2.72 which indicate that NORSU management should quantify, analyze and do improvement on the school deficiency.

***Significant Mean Difference on the Perception of Awareness and Practices of the QMS requirements.***

Using one-tailed two-sample unequal variance t-test, it was found out that there is significant difference between awareness level and extent of practice. Result shows that p-value is equal to 0.020139 which is close to zero as shown in table 13. Since p-value of 0.020139 is lower than 0.05 significant levels, the hypothesis H<sub>0</sub> is rejected. It shows that respondents are mostly aware of the QMS requirements, but the institution fails on the implementation.

**CONCLUSION:**

The personnel of Negros Oriental State University are generally aware of ISO 9001:2001 QMS. However, based on the result of the survey, NORSU management moderately practiced the Quality Management System procedures and processes. This is because of limited support from the top management, and lack of knowledge and training related to quality management system. The researcher concludes that there is a need to fully internalize the principles of QMS towards a higher level of awareness and practice.

**RECOMMENDATION:**

Based on findings and conclusion of this study, the researcher recommends the following:

- To achieve this objective, there should be proper trainings and seminars to be conducted to improve the practice and awareness of quality management of the institution.
- The top management of Negros Orientation State University that the proposed strategies be considered for adoption and implementation in order to address the problems found to be the hindrance for successful implementation of the institutions' quality management system. There should be a quality assurance representative who will be in-charge in monitoring, reviewing, controlling and analyzing the quality management of Negros Oriental State University.
- Furthermore, the administration should actively support and participate in the continual improvement of all activities pertaining to quality management system.

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