

Assessing Quality Awareness and its Alignment with Customer Needs in Manufacturing and Service Organizations

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Abstract: Quality awareness is core to achieving organizational success; it drives customer satisfaction and efficiency in operations. In today's marketplace, organizations in the manufacturing and service sectors must have employees who understand and apply quality aspects effectively. Quality refers to the degree of a product (or service) satisfying customer needs, wants and expectations. The quality culture within an organization will keep it competitive, improve brand reputation, and reduce costs associated with defects and customer dissatisfaction. This study assesses the quality awareness of the employees and its alignment with customer needs in a manufacturing or service organization. The researchers engaged with the organization' employees to determine how quality awareness affects their workplace and customer satisfaction. The researchers employed a quantitative descriptive survey methodology to collect data, which was then analyzed using statistical techniques and the scoring interpretation provided by Nurali & Suziyani. Microsoft Excel was utilized for this assessment based on the findings; conclusions were drawn regarding the respondents' describing the general understanding of quality awareness, importance of quality awareness in a company's success and quality issues awareness in their organization. The emphasizes that the respondents unanimously acknowledged the advantages of quality awareness incorporating in various areas, including customer needs and satisfaction on product or services delivery.

Keywords: Quality Awareness, Total Quality Management, Manufacturing Organization, Service Organization, Customer Satisfaction.

1. Introduction

A. Background of the Study

Quality awareness is widely accepted as vital, organizations still struggle with inconsistent implementation, knowledge gaps in their workforces, and the reluctance of employees to change. Employees must understand their individual impact on maintaining and improving quality enough to align the output of the organization to market demand and regulations.

This research will seek to assess employees' ability to be quality aware in their respective organizations, what obstacles exist, how to improve quality awareness and its importance to the organization's success.

Quality awareness is important in guaranteeing an organization to fulfill its customers' demands, keep operational efficiency, and be compliant with the standards. The employees' quality awareness in the manufacturing and service sectors directly affects the product's reliability, customer satisfaction, and business performance. This chapter discusses the importance of quality awareness in institutions by reviewing old research and the analyzing of its validity, the difficulties, and the influence on the business performance.

Quality awareness in organizations is the subject of a lot of research that emphasizes the role of standardized quality training in the organizations and its effect on efficiency and customer satisfaction. Kaul et al. (2017) probed the influence of structured employee training programs on quality awareness within Indian manufacturing firms. The research exhibited that companies which offered formal training were taking a step well, had a 20% defect fall and a 15% gain in customer retention. In the same manner, Rao and Patel (2017) were going in-depth on the employee knowledge of quality in the service industry, underlining the importance of continuous education for having the right happy customers and high-quality service standards.

Despite the growing emphasis on quality awareness, challenges persist in organizations. Kumar et al. (2016) identified three major barriers to effective quality implementation:

- Limited Training Programs A mere 40% of Indian companies deliver systematic, organized quality training to their employees, which ends up with the quality practice varying (Rao & Patel, 2017).
- Resistance to Change Employees are inclined to go against quality protocols because they hold



misconceptions about the fact that it can cause them to do more work (Kaul & Bhattacharjea, 2019).

 Supplier Quality Management – Production defects that are mainly due to the customers' dissatisfaction with the supplier's poor control mechanisms are a result of weak control mechanisms (Singh & Verma, 2015).

Quality awareness is a crucial direct factor which is undoubtedly linked to the success of a business stronger Choudhury and Mehta (2014) who have confirmed that companies with robust quality awareness frameworks resulted in 30% fewer customer complaints and higher brand loyalty of 25%. In addition to this argument, Das and Banerjee (2013) have reached their conclusions that quality management prioritizing companies have seen a 12% increase in revenue and a 10% drop in operational inefficiencies.

To improve awareness about the quality an organization must provide Digitize Quality Management System (DQMS) enabling AI-powered analytics for quality monitoring in real-time, Expand Employee Training Programs (EETP) engaging the workforce with quality programs tailored to individual job duties and Strengthen Vendor Management Strategies (SVMS) that could be done by using suppliers who will apply the strictest of quality control measures to cut down on the number of defects.

B. Theoretical/Conceptual Framework

The study refers to a range of theoretical frameworks which can be used to illustrate how quality awareness is important and how employees see and operate quality-related practices. Total Quality Management (TQM) Theory stresses an organization-wide commitment of all the company's staff to a never-ending innovation, fact-driven decision making, and employee power.

Quality Awareness Model (QAM) gives a theoretical basis for assessing employees' awareness of quality and how those employees are making use of it in their places of work. Technology Acceptance Model (TAM) examines the process of how and in which ways do businesses welcome new techniques such as quality-oriented technologies to improve their efficiency and to reach high and steady state. Human Factors in Quality Management (HFQM) explores the connection between employees' behavior, feelings, and commitment and the creation of the concept of quality awareness within an organization.

C. Scope, Delimitation, and Limitation

The research focuses on organizations within manufacturing and service industries, examining various employee roles, including staffs, technical support personnel, customer service representatives, engineers, and supervisors. By assessing and analyzing their understanding and engagement with quality principles, the study will provide insights into the effectiveness of quality awareness strategies.

The study is limited to organizations that actively implement quality management practices. It focuses solely on employee perceptions and awareness, rather than technical product testing or quality certification processes.

External factors such as government regulations, industry-specific challenges, and economic fluctuations are beyond the scope of the study. The research does not cover individual case studies of specific organizations but provides a general industry-wide analysis.

D. Significance of the Study

The exploration study will contribute confirmatory insights for improving the quality of organization by way of quality awareness. The findings will be helpful in manifold ways:

- For Organizations Assists businesses in redesigning their quality training programs and in strengthening their strategies for creating a quality-conscious workforce.
- For Industry Experts & Policymakers Offers facts and figures on quality awareness, thus, making possible the most appropriate policy decisions for the regulation of the industry and the setting of standards.
- For Employees Encourages employees in understanding the importance of their role in the maintenance of quality and in gaining the knowledge for increasing workplace efficiency.
- For Future Researchers Acts as a groundwork for further studies in the aspect of the development of quality management initiatives, the organization's culture, and employee engagement in quality awareness

2. Methodology

A. Study Design

This study employs a descriptive research method. A quantitative descriptive survey was deemed appropriate for gathering the necessary information, as it helps to describe and assess the actual level of quality awareness within the organization, particularly in alignment with customer needs.

B. Locale of the Study

This study was conducted in selected one (1) manufacturing and one (1) service organizations located in Clark Pampanga and Laur Nueva Ecija. These industries were selected due to their varied approaches to quality management and their direct influence on customer satisfaction.

These organizations were chosen based on their size, reputation, and established processes for maintaining quality in both production and service delivery. This diverse set of organization allows for a comparative analysis of quality awareness in different sectors and how effectively this awareness aligns with customer needs.

Data collection was conducted within the premises of these organizations, where employees from staff members, technical support personnel, customer service representatives, engineers, and supervisors participated in the survey.



The study was carried out and permission for participation was granted by the management of each organization involved. By focusing on these specific locations and industries, the study aims to gather insights that are relevant to both manufacturing and service-oriented environments, providing a comprehensive understanding of quality awareness practices.

C. Population and Sample of the Study

The population and sample in this research comprised of all staff members, customer service representatives, technical support personnel, engineers, and supervisors in the selected manufacturing and service organizations in Clark Pampanga and Laur Nueva Ecija. The population comprised of nineteen (19) staffs, three (3) customer service representatives, three (3) technical support personnel, fourteen (14) engineers and nine (9) supervisors. These individuals were chosen as the target population due to their influence on the organization's commitment to quality.

The researchers employed a convenience sampling method to ensure proportional inclusion of participants. This approach helped capture a diverse range of insights regarding quality awareness within the organization, aligned with customer needs.

D. Data Analysis

To assess the level of quality awareness within the organization in alignment with customer needs, the primary research instrument used in this study was a structured survey questionnaire and it was validated by experts. This tool was developed based on relevant literature and aligned with the research objectives to gather quantitative data from the selected respondents.

The questionnaire consisted of two main parts; Part I is the demographic profile of the respondent's based on age, gender, job position, length of service in the organization and type of industry/organization, while Part II is the Quality Awareness Assessment (Likert Scale) included a series of statements designed to measure employees' general understanding of quality awareness, the importance of quality awareness in a company's success, and their awareness of quality issues within the organization. Respondents were asked to rate each statement using a 5-point Likert Scale, where 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree and 5 – Strongly Agree.

E. Data Collection Procedure

This study employed a systematic data collection procedure to assess the level of quality awareness among employees and its alignment with customer needs in both manufacturing and service organizations. The procedure was carefully designed to ensure accurate, reliable, and ethical data gathering. The researchers provided informed consent along with the survey questionnaires to staff members, technical support personnel, customer service representatives, engineers, and supervisors. After obtaining their permission to participate in the study, the researchers distributed the survey questionnaires for them to

complete. A maximum of thirty (30) minutes was allocated for respondents to complete the survey.

1) Ethical Considerations for the Analysis of the Study

Ethical considerations are vital in ensuring the integrity and credibility of any research study.

Firstly, obtaining informed consent is essential. Before conducting the survey, it should be able to inform and explain the study to the target respondent, and it is necessary for their willingness to answer, including the freedom to withdraw at any time without penalty. To ensure confidentiality and anonymity, any information provided in the survey questionnaire will be handled with strict confidentiality, and personal identifiers will be removed to prevent the disclosure of individual identities. All collected data will be accurately recorded, securely stored, and preserved to maintain its integrity and prevent unauthorized alterations. Furthermore, researchers bear the responsibility for the ethical use of research findings, ensuring that results are reported honestly and applied in ways that benefit society without causing harm. By adhering to these ethical principles, researchers uphold the integrity of their work and contribute positively to the advancement of knowledge and social wellbeing.

F. Data Analysis

The responses from the survey were analyzed by calculating the percentage and frequency using Microsoft Excel software. Since this study identified frequency and percentage for each item in the questionnaire, the interpretation of these findings was based on Nurul and Suziyani's (2018) suggestion for percentage score interpretation. As presented in Table 1, if an item achieved a percentage score between 0% and 49%, the level of agreement on the item statement was considered as low. Based on the standard norm, a 50% score is considered a mean score, while a score of 75% or above is considered to be within the highest quartile (Azriah et al., 2019).

Table.1. Interpretation of percentage scores.

Percentage Score	Score Interpretation
75% to 100 %	High
54% to 74%	Moderate
0% to 49%	Low

Source: Nurul and Suziyani (2018)

3. Results And Discussion

In this section, all data gathered was discussed to address the questions associated with this study. The tables below show the demographic profiles of the respondents who participated in this study.

Type of Industry					
Frequency Percent Percent Percent					
Manufacturing	21	43.8	43.8	43.8	
Services	27	56.3	56.3	100.0	
Total	48	100.0	100.0		



Age					
	Frequency	Percent	Valid Percent	Cumulative Percent	
20 - 25 y/o	11	22.9	22.9	22.9	
26 - 30 y/o	10	20.8	20.8	43.8	
31 - 35 y/o	7	14.6	14.6	58.3	
36 - 40 y/o	7	14.6	14.6	72.9	
41 - 45 y/o	6	12.5	12.5	85.4	
46 - 50 y/o	4	8.3	8.3	93.8	
50 y/o above	3	6.3	6.3	100.0	
Total	48	100.0	100.0		

Length of service in the organization					
	Frequency	Percent	Valid Percent	Cumulative Percent	
Less than a year	2	4.2	4.2	4.2	
1 - 3 years	22	45.8	45.8	50.0	
4 - 6 years	7	14.6	14.6	64.6	
7 - 10 years	5	10.4	10.4	75.0	
10+ years	12	25.0	25.0	100.0	
Total	48	100.0	100.0		

Job Position				
	Frequency	Percent	Valid Percent	Cumulative Percent
Supervisor	9	18.8	18.8	18.8
Engineer	14	29.2	29.2	47.9
Technical Support Personnel	3	6.3	6.3	54.2
Customer Service Representative	3	6.3	6.3	60.4
Staff	19	39.6	39.6	100.0
Total	48	100.0	100.0	

Of all 48 respondents, their demographics were found to be 52.1% (n=25) female, and 47.9% (n=23) male. Twenty – one (21) of the total respondents which is 43.8% are working in the manufacturing organization while 56.3% (n=27) are working in the service organization. In terms of their ages, the majority of respondents are 22.9% (n=11) were aged 20 - 25 years old, followed by 20.8% (n=10) were aged 26 - 30 years old, 14.6%(n=7) were aged 31 - 35 years old, 14.6% (n=7) were aged 36-40 years old, 12.5% (n=6) were aged 41-45 years old, 8.3%(n=4) were aged 46 - 50 years old and 6.3% (n=3) were aged 50 years old and above. Furthermore, the researchers aimed to distinguish the respondents' length of service in the organization, and it was found out that most of the respondents have 1-3 years' experience which is 45.8% (n=22), followed by 25.0% (n=12) have more than 10 years of experience, 14.6% (n=7) have 4-6 years' experience, 10.4% (n=5) have 7-10years' experience and 4.2% (n=2) have less than a year experience.

The researchers also found out that most of the respondents who have 10+ years' experience working in the organization are the supervisors of the current year as the research conducted.

A. Employee's General Understanding of Quality Awareness
After the analysis of the summary of employees' responses

(Table 3.1), it was found out that 100% (n=48) of the respondents agreed (agree and strongly agree) on how employees clearly understand the concept of their quality of work, 95.9% (n=46) of the respondents agreed (agree and strongly agree) on how employees are knowledgeable about the standards and procedures in their line of work, 100% (n=48) of the respondents agreed (agree and strongly agree) striving to uphold quality in all aspects of work and activities within the organization and 100% (n=48) of the respondents agreed (agree and strongly agree) that job position plays a part in sustaining and improving quality of work.

Table 3.1 shows the employees' responses highly describe that general understanding in quality awareness refers to a level of commitment where employees recognize their positions

VARIABLES	RESPONSE	FREQUENCY	PERCENT	VALID PERCENT
	Strongly Agree	36	75%	75%
	Agree	12	25%	25%
Q.1. I clearly	Neutral	0	0%	0%
understand the concept of quality of	Disagree	0	0%	0%
work.	Strongly Disagree	0	0%	0%
	Missing	0	0%	0%
	Total	48	100%	100%
	Strongly Agree	32	67%	67%
Q.2. I am	Agree	14	29%	29%
knowledgeable	Neutral	2	4%	4%
about the standards	Disagree	0	0%	0%
and procedures in	Strongly Disagree	0	0%	0%
my line of work.	Missing	0	0%	0%
	Total	48	100%	100%
Q.3. I strive to uphold quality in all aspects of my work	Strongly Agree	30	63%	63%
	Agree	18	38%	38%
	Neutral	0	0%	0%
	Disagree	0	0%	0%
and activities.	Strongly Disagree	0	0%	0%
	Missing	0	0%	0%
	Total	48	100%	100%
Q.4. I am aware of how my position plays a part in sustaining and improving quality of	Strongly Agree	31	65%	65%
	Agree	17	35%	35%
	Neutral	0	0%	0%
	Disagree	0	0%	0%
	Strongly Disagree	0	0%	0%
work.	Missing	0	0%	0%
	Total	48	100%	100%

contribute to sustain and improve the work quality aligning in customer satisfaction and organization outcomes. This awareness encompasses understanding work quality concepts, standards and procedures striving to uphold quality in all aspects of works and activities within the organization.

B. Employee's Awareness In The Importance Of Quality In A Company's Success

In summary of all the responses of the employees (Table 3.2) in terms of the importance of quality awareness in a company's success, it was found that 100% (n=48) respondents agreed (agree and strongly agree) to understand the value of quality awareness regardless of their role, 100% (n=48) respondents agreed (agree and strongly agree) to follow the correct process ensuring high-quality products and services, 100% (n=48) respondents agreed (agree and strongly agree) that it is essential to prioritize quality awareness in achieving customer satisfaction and 100% (n=48) respondents agreed (agree and strongly agree) that the organization's success depends largely on the quality of products and services.



VARIABLES	RESPONSE	FREQUENCY	PERCENT	VALID PERCENT
	Strongly Agree	37	77%	77%
Q.1. All employees,	Agree	11	23%	23%
regardless of their	Neutral	0	0%	0%
role, should understand the	Disagree	0	0%	0%
value of quality	Strongly Disagree	0	0%	0%
awareness	Missing	0	0%	0%
	Total	48	100%	100%
	Strongly Agree	39	81%	81%
Q.2. The correct	Agree	9	19%	19%
processes are	Neutral	0	0%	0%
followed to ensure	Disagree	0	0%	0%
high-quality service	Strongly Disagree	0	0%	0%
and products.	Missing	0	0%	0%
	Total	48	100%	100%
	Strongly Agree	36	75%	75%
Q.3. Prioritizing quality awareness	Agree	12	25%	25%
	Neutral	0	0%	0%
is essential for	Disagree	0	0%	0%
organizations to achieve customer	Strongly Disagree	0	0%	0%
satisfaction.	Missing	0	0%	0%
	Total	48	100%	100%
	Strongly Agree	40	83%	83%
Q.4. The success of a company depends largely on the quality of its	Agree	8	17%	17%
	Neutral	0	0%	0%
	Disagree	0	0%	0%
products or	Strongly Disagree	0	0%	0%
services.	Missing	0	0%	0%
	Total	48	100%	100%

Table 3.2 shows the employees' responses highly describe the importance of quality awareness in a company's success as it directly impact customer satisfaction, employee's role and high-quality products or services. By focusing quality, organizations can identify the value of their employee regardless of their role to deliver high-quality products or services where employees work together to achieve common goals. Prioritizing quality awareness is essential for organizations when products or services consistently meet or exceed customer expectations that will leads to higher satisfaction and loyalty. A strong focus on quality can help a company stand out from competitors that will lead them to a successful manufacturing or service organization.

C. Employee's Awareness in The Quality Issues in An Organization

After conducting survey, the researchers came up with a summary of the responses (Table 3.3) of the 48 manufacturing or service organization employees in line with their awareness of quality issues in their organization, in which they found out that 100% (n=48) respondents agreed (agree and strongly agree) can assess and determine whether a product or service is acceptable or needs to be rejected, 98% (n=47) respondents agreed (agree and strongly agree) to consistently review their work to make sure it aligns with quality standards, 91.6% (n=44) respondents agreed (agree and strongly agree) are informed about the steps taken by the organization to address quality issues and 98% (n=47) respondents agreed (agree and strongly agree) believe that quality issues are taken seriously in their organization.

VARIABLES	RESPONSE	FREQUENCY	PERCENT	VALID PERCENT
Q.1. I can assess	Strongly Agree	32	67%	67%
and determine	Agree	16	33%	33%
whether a product	Neutral	0	0%	0%
or service is	Disagree	0	0%	0%
acceptable or	Strongly Disagree	0	0%	0%
needs to be	Missing	0	0%	0%
rejected	Total	48	100%	100%
	Strongly Agree	32	67%	67%
Q.2. I consistently	Agree	15	31%	31%
review my work to	Neutral	1	2%	2%
make sure it aligns	Disagree	0	0%	0%
with quality	Strongly Disagree	0	0%	0%
standards.	Missing	0	0%	0%
	Total	48	100%	100%
	Strongly Agree	22	46%	46%
Q.3. I am informed about the steps	Agree	22	46%	46%
	Neutral	4	8%	8%
taken by the	Disagree	0	0%	0%
organization to address quality	Strongly Disagree	0	0%	0%
issues.	Missing	0	0%	0%
	Total	48	100%	100%
	Otera et a A esse	28	58%	58%
Q.4. I believe that quality issues are taken seriously in	Strongly Agree			
	Agree	19	40%	40%
	Neutral	1	2%	2%
	Disagree	0	0%	0%
my organization.	Strongly Disagree	0	0%	0%
	Missing	0	0%	0%
	Total	48	100%	100%

Table 3.3 shows the employees' responses highly describe their awareness to quality issues in their organization depends on various factors in essence to report on improvement areas or competency gaps. Maintaining work quality regardless the issue requires a consistent and systematic approach that involves clear communication, aligned goals, and effective feedback to achieve and sustain quality across different functions and groups in your management role. Employees' awareness to quality issues allows the organization to improve how quality is perceived internally, subsequently the perception of quality by their customers.

D. Addressing the Challenges

The objective of this study is to gauge the understanding level of quality among employees and to analyze its direct effect on the achievement of the operation. While the study has highlighted some of its good things, it is necessary to discuss the problems encountered while assessing the quality awareness and its alignment with customer needs in manufacturing or service organizations in Clark Pampanga and Laur Nueva Ecija. Despite the acknowledgement of numerous institutions about the significance of good quality, there are some issues that are not yet addressed, which hinder the realization of it.

- Knowledge Gaps Employees may not be entirely aware of quality standards or be blind to their relevance in the implementation of their daily tasks.
- Resistance to Change Some individuals at work regard quality changes as an exertion of other efforts rather than as constructive improvements.
- Communication Barriers The mismatch between management and employees may illustrate situations where the quality assurance procedures are done in a problematic and inconsistent way.



 Customer Feedback Misalignment – Organizations may be at a loss as to how to include customer input in the search for enhanced quality and shall consequently have to deal with recurrent service or product quality problems.

4. Conclusion

In conclusion, assessing the quality awareness and its alignment with customer needs in manufacturing or service organizations in Clark Pampanga and Laur Nueva Ecija offers immense advantages in various aspects of the employees' awareness in terms of quality. This study set out the high-level awareness of employees in manufacturing or service organization in Clark Pampanga and Laur Nueva Ecija. Employees highly describe their general understanding of quality awareness, its importance to a company's success and awareness to quality issues in their organization. The results of the study showed that employees' quality awareness can lead to high-level customer satisfaction, company's success and embedding quality principles, concepts, standards, and procedures throughout the organization.

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