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THE IMPLEMENTATION OF ISO 9001:2015 TO IMPROVE QUALITY OF SERVICE AT PUSAT KESIHATAN UNIVERSITI (PKU), UNIVERSITI UTARA MALAYSIA (UUM)

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ABSTRACT

The purpose of this study is to review the implementation of ISO 9001:2015 in order to improve the quality of services at Pusat Kesihatan Universiti (PKU), Universiti Utara Malaysia. The respondents of this study were customers at the PKU, UUM. The questionnaire was distributed to 50 respondents. The data were analyzed using SPSS software version 24. The data were tested using descriptive statistics, and correlation analysis to answer the research questions and to achieve the objectives. The findings show that customers agree that implementation of ISO 9001:2015 give service at PKU, UUM is good and satisfied. Through the correlation test, the results showed that the relationship between the implementation of ISO 9001:2015 has a positive and significant impact on customer satisfaction and the effect of implementing ISO 9001:2015 has a positive and significant impact in improving quality of service at PKU, UUM. Through mean and standard deviation tests, results show that tangible dimensions are the main dimensions of customer satisfaction while dimensions with low values are dimensions of responsiveness. Therefore, all aspects of service in PKU, UUM will be strengthened and all aspects of the weaknesses could be addressed to improve the service in order to maintain good quality services.

Keyword: ISO 9001:2015, service performance, quality, health care, customer satisfaction, SERVQUAL model

INTRODUCTION

International Organization for Standardization (ISO) ISO 9001 was first published in 1987 and became the main dimensions of the quality movement and key management in the framework for all types of organizations worldwide (Fonseca, 2015). ISO 9001 standards are more developed in quality management systems (QMS) and provide guidance for all organizations, wherever the size and the sector to make sure that the products and services operate consistently to fulfill customer needs and also improve the quality of performance and services from time to time (Psomas & Pantouvakis, 2015).

Referring to Wilson and Campbell (2016), in September 2015 a new version of the ISO 9001:2015 Quality Management System indicates that the conditions contained for the first time are the responsibility of the organization to make sure their quality of the product convincing and satisfying the users. ISO 9001:2015 has ten clauses while ISO 9001:2008 has eight clauses. Furthermore, the main difference between ISO 9001:2008 and ISO 9001:2015 is risk management. This is because in ISO 9001:2015 there is a plan to control any risks within the organization. Besides that, there are seven quality management principles based on the new version of ISO 9001:2015 Quality management system such as customer focus, leadership, involvement of people, process approach, improvement, evidence-based to decision making, and the relationship management (ISO, 2015c).

Customer satisfaction is the underlying goal for healthcare service providers because this satisfaction is directly related to the quality of services provided by the health center. In this case, it is important to provide quality healthcare services to ensure the well-being and health of all UUM residents are guaranteed and protected by using ISO 9001:2015 standards. So, measuring customer satisfaction is the key to the health center service providers such as PKU, UUM makes improvements to achieve customer satisfaction and directly meet the needs of customers. This study discusses the quality of service through the SERVQUAL model dimensions to measure customer satisfaction.

The objectives of this study are:

1. To identify the type of relationship between ISO 9001:2015 and customer satisfaction at PKU, UUM.

2. To observe the effect of implementation of ISO 9001: 2015 in improving the quality of service at PKU, UUM.

3. To analyze which factor is most dominant in determining the quality of service in the context of customer satisfaction at PKU, UUM.

Problem Statement

According to Bhuiyan and Alam (2005), a less of management support and less of training also be the issue in ISO 9001. Most organizations have problems during and after the certification process ISO 9001 like to enhance customer satisfaction (Chow-Chua et al., 2003). Singh et al. (2006) that less of management and leadership have been identified as an important barrier to the successful implementation of ISO 9001. Research by Cheng et al. (2007) identified the less of senior management commitment, employee resilience against

changes and inadequate training and support as an obstacle to the successful implementation of ISO 9001. Besides that, emphasizing the failure to exercise adequate control over documents, failure to determine responsibilities and authority for staff, and inadequate training (Chow-Chua, Goh and Wan, 2003).

LITERATURE REVIEW

Overview of ISO 9001 Standard

ISO 9001 or "quality management certification" is a standard that sets a generic requirement and is intended for use by all organizations, regardless of the type, size, and product provided for quality management systems (Khattak & Arshad, 2015). Processes were defined by ISO as a set of interconnected or connecting activities that use inputs to deliver the outcome and to achieve the objectives all organization uses the processes (ISO, 2015d). So, ISO 9001:2008 and ISO 9001:2015 are included in the process approach. These standards contribute to the development, manufacturing, and delivery of products and services that are more effective, safer and clearer. Every 3 to 5 years to keep these standards up-to-date, ISO performs systematic reviews. ISO has been the world's leading Quality Management System (QMS) from ISO 9001:2008 to ISO 9001:2015.

Table 1 shows a comparison between two different versions of ISO 9001 clause. Clauses in first clauses until third clauses of ISO 9001:2008 and ISO 9001:2015 are not used in process approach. This clause only provides some important information related to QMS implementation requirements (IAF, 2015).

Table 1.

Comparison between ISO 9001:2008 & ISO 9001:2015 clause

Clause	ISO 9001:2008	ISO 9001:2015
1	Scope	Scope
2	Normative references	Normative references
3	Terms and definitions	Terms and definitions
4	Quality Management System	Context of the organization
5	Management Responsibility	Leadership
6	Resource Management	Planning
7	Product Realization	Support
8	Measurement, Analysis and Improvement	Operation
9		Evaluation
10		Improvement

IS0 9001:2015 Effect on Customer Satisfaction

Customer satisfaction and service quality are two different aspects, but are interdependent. It contains a lot of theories that have been created from these two aspects that consist a variety of dimensions and sections to illustrate the relationships. Customer satisfaction is one of the business term that means measuring the extent to which a product or service provided by the organization to meet customer expectations or in other words customer satisfaction is the part
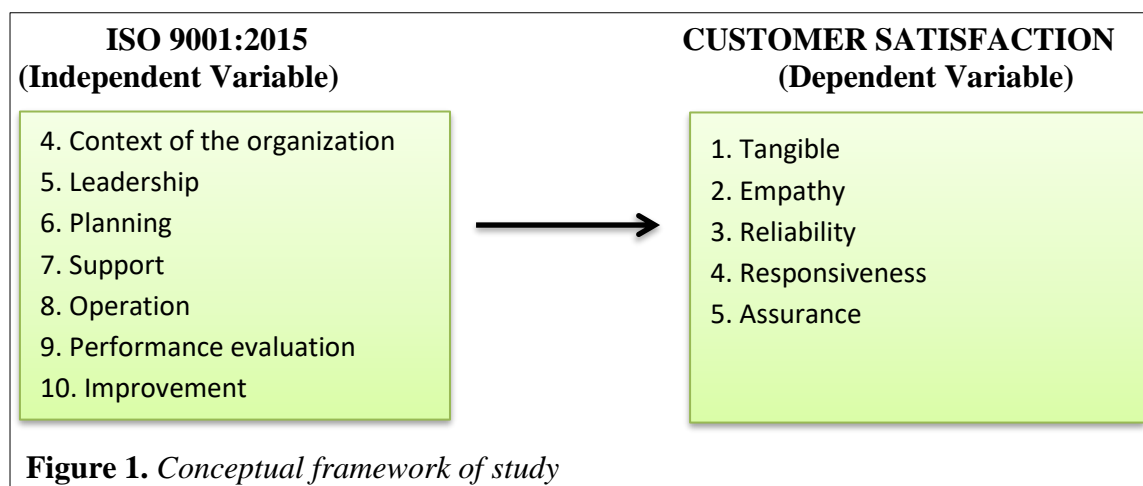
that shows the wants, needs and customer expectations that need to be met or fulfilled to create customer loyalty against the product or service offered (A. Kahar, 2008). Customer satisfaction is the key to a business which is in receipt of a service satisfactory was being evaluated by the customer (Mustafa et al., 2007). The application of the principle "customer satisfaction" can lead to significant results in research and make sure that the objectives of an organization are related to customer needs and expectations were to understand the needs and expectations of customers throughout the organization. Customer's satisfaction can be measured by identifying gaps between customers' satisfaction and expectations (Foster & Ganguly, 2013).

SERVQUAL Model

There are many studies that use the SERVQUAL model instrument to measure the quality of services. According to Parasuraman, Zeithaml, and Berry (1985) SERVQUAL measurement is intended to measure performance level quality of service in the field of marketing and is widely used in various fields. It helps service providers to understand customer expectations and perceptions of services rendered as well as continuous quality assessments (Booth, 2003). SERVQUAL gives more weight to the service delivery process rather than other features of services (Kang & James, 2004). According to Johari (2007), every dimension gives its own valuation of the evidence for every dimension is like physical evidence or existence/express means physical convenience, equipment condition, and personal appearance. The measurement consists five categories that represent the service quality dimension (tangibles, reliability, responsiveness, assurance, and empathy).

Conceptual Framework of Study

Figure 1 shows the conceptual framework of this study. There is the dependent variable which is customer satisfaction and the implementation of ISO 9001:2015 is the independent variable.

ISO 9001:2015 (Independent Variable)	CUSTOMER SATISFACTION (Dependent Variable)
4. Context of the organization 5. Leadership 6. Planning 7. Support 8. Operation 9. Performance evaluation 10. Improvement	1. Tangible 2. Empathy 3. Reliability 4. Responsiveness 5. Assurance

Figure 1. *Conceptual framework of study*

Research Hypothesis

H1: Implementation of ISO 9001:2015 has a positive and significant impact on customer satisfaction at PKU, UUM.

H2: The impact of implementing ISO 9001:2015 in improving the quality of service has a positive and significant impact in improving the quality of service at PKU, UUM.

METHODOLOGY

Sampling and Data Collection

This study is a quantitative research. Therefore, the researcher has chosen a random sampling technique that is easy to use in this study. In simple random sampling, each member of the population has the same opportunity to be selected as a sample. In this study, the researcher wants to see the implementation of ISO 9001:2015 to improve the quality of services on customer satisfaction at PKU, UUM by taking customers at PKU, UUM as a population of studies. According to the probability sampling, the sample was selected around of 379 students in Universiti Utara Malaysia are chosen as the respondent of this study. If the population size of the people around 30,000 persons so that it becomes 379 persons were selected as the sample (Krejcie & Morgan, 1970). Before the researcher sent a questionnaire to the respondent, the researcher has obtained a letter of support from the Student Affairs Department, U-Assist, Universiti Malaysia Utara to conduct a study at the University Health Center (PKU), UUM. Next, the researcher has asked for permission from the administration at PKU to distribute a set of questionnaires. The researcher also distributed questionnaires and collected the questionnaire on the same day.

Design of Questionnaire

The questionnaire design based on the original instrument that has been adopted by the JPM Quality Management System in their research on ISO 9001:2015. Meanwhile, for the design of the SERVQUAL model questionnaire based on the original instrument adopted by Parasuraman et al. (1985) that has created an instrument named SERVQUAL. The questionnaire that was used in this study is classified into three parts. Section A is demographic variables (such as respondent, gender, course, semester, age, nation, and frequency go to PKU, UUM), section B is the relationship between ISO 9001:2015 and customer satisfaction at PKU, UUM, and section C is impact of implementing ISO 9001:2015 in improving the quality of service to customer satisfaction at PKU, UUM. The entire set of questionnaires consists of 42 questions which take no more than 15 minutes to answer. For Part A, the data are measured using a nominal scale. Whereas Part B and C use an ordinal scale in the form of Likert scale which has five options.

Data Analysis Method

When all the data are encoded in the questionnaire obtained from the respondents, the researcher has inserted the data for analysis. Statistical Package for Social Science (SPSS) software version 24 used to analyze the data that has been collected. Firstly, researcher finds the descriptive statistics such as mean, percentage, and frequency distribution of respondent information. Furthermore, the statistics used in this study are the Pearson correlation test. All of these methods are used to test the relationship between implementing of ISO 9001:2015 and customer satisfaction, to test the impact of implementing ISO 9001:2015 to improve quality of service in customer satisfaction at PKU, UUM and also to analyze which factor is most dominant in determining the quality of service in the context of customer satisfaction at PKU, UUM

FINDING AND DISCUSSION

Descriptive Analysis

According to Krejcie & Morgan (1970), based on the population table, it should be select 379 students as the respondent but due to compact class schedule, time constraints and the percentage of people who are sick for that time is a bit so the researchers only get 50 respondents and the response rate for this study is (13%). Table 2 shows that respondents are all 50 students and the percentage is 100 percent. Based on the gender, the majority of respondents were 29 females (58%) while the rest were 21 males (42%). A total of 21 courses consisted of 50 respondents at PKU, UUM. Majority respondent's course comes from accounting students. The majority of respondents have come from semester 1 which is 28 students (56%). The results showed those 47 respondents (94%) between 18 and 25 years. The finding also showed that the highest number of respondents was Malay race is 28 people (56.0%). In terms of frequency of going to PKU, the majority are many who rarely go to PKU are 44 people (88.0%).

Table 2.

Respondent's demographic profile

	Statement	Frequency	Percent %
Respondent	Students	50	100.0
Gender	Male	21	42.0
	Female	29	58.0
Course	Technology Media	1	2.0
	Marketing	2	4.0
	Accounting	10	20.0
	Communication	1	2.0
	Banking	1	2.0
	Administration	1	2.0
	Law	4	8.0
	Statistic Industry	1	2.0
	Management Technology	2	4.0
	Business Math	3	6.0
	Event Management	3	6.0
	Information Technology	2	4.0
	Finance	2	4.0
	Economic	5	10.0

	Islamic Finance & Banking	1	2.0
	Entrepreneurship	1	2.0
	Business Admin	4	8.0
	M. Education	3	6.0
	Linguistic	1	2.0
	Intaff	1	2.0
	Logistic	1	2.0
Semester	1	28	56.0
	2	2	4.0
	3	8	16.0
	4	2	4.0
	5	3	6.0
	6	1	2.0
	7	5	10.0
	9	1	2.0
Age	18-25	47	94.0
	26-35	2	4.0
	36-45	1	2.0
Nation	Malay	28	56.0
	Chinese	17	34.0
	India	3	6.0
	Others	2	4.0
Frequency	Every day	1	2.0
	2-3 times a week	4	8.0
	4-6 times a week	1	2.0
	Rarely	44	88.0

Reliability Test

The statistical reliability of the study instrument uses the Cronbach's Alpha coefficient. When the alpha value is less than 0.6 and closer to 0 is can be considered invalid and the reliability of the constructed item is low, if the alpha value more than 0.6 and closer to 1.0, it can be considered the highest score and the items are reliable (Sekaran, 2003). Based on Table 3, it shows the alpha value obtained for each variable in the questionnaire more than 0.6.

Therefore, the questionnaire is considered good and acceptable and has used to obtain real data starting.

Table 3.

Reliability Statistics

No	Statement	Item	Cronbach's Alpha
1	Awareness of the implementation ISO 9001:2015	3	0.61
2	The Impact of implementing ISO 9001:2015	4	0.62
3	Effectiveness of ISO 9001:2015	3	0.68
4	Tangible	5	0.81
5	Empathy	5	0.89
6	Reliability	5	0.88
7	Responsiveness	5	0.86
8	Assurance	5	0.92

Table 4 responds to the third objective which is tangibles is the highest quality of service dimension affecting the impact of implementing ISO 9001:2015 in customer satisfaction at PKU, UUM with a mean of 3.95, while responsiveness mean is 3.58 the lowest quality of service dimension. 0.30 is the standard deviation for tangible dimension shows that customer like to deal with PKU that provide visually appealing and comfort of physical facilities, cleanliness of PKU environment, the waiting area is available, staff PKU looks neat and well-dressed and also a good direction signal.

Table 4.

Mean and Standard Deviation Affecting Impact of Implementing ISO 9001:2015 in Customer Satisfaction Based on SERVQUAL Model

SERVQUAL Dimension	A TANGIBLES	B EMPATHY	C RELIABILITY	D RESPONSIVENESS	E ASSURANCE
	3.44	3.66	3.86	3.32	3.66
	4.10	3.72	3.90	3.52	3.80
	3.96	3.50	3.40	3.62	3.78
	4.00	3.58	3.58	3.66	3.82
	4.24	3.56	3.66	3.78	3.98
Position	1	4	3	5	2
Mean	3.95	3.60	3.68	3.58	3.81
Standard Deviation	0.30	0.09	0.21	0.17	0.11

Pearson Correlation Analysis Results

Referring to the first objective of this study, Table 5 shows that the relationship between the implementation ISO 9001:2015 was a positive and significant impact on customer satisfaction. Since the correlation values ($r = 0.466$) it has a medium strength relationship. Hence, the hypothesis H1 is accepted. In conclusion, this shows the positive relationship with ISO 9001: 2015 can have a huge impact on customer satisfaction at PKU, UUM.

Table 5.

Correlation results

		ISO 9001:2015	Customer Satisfaction
ISO 9001:2015	Pearson Correlation	1	.466**
	Sig. (2-tailed)		.000
	N	50	50
Customer Satisfaction	Pearson Correlation	.466**	1
	Sig. (2-tailed)	.000	
	N	50	50

** Correlation is significant at the 0.01 level (2-tailed).

Responding to the second objective of this study, correlation analysis was conducted to analyze the impact of implementing ISO 9001:2015 to improve quality of service at PKU, UUM. Referring to Table 6, it shows that the effect of implementing ISO 9001:2015 has a positive and significant impact in improving quality of service at PKU, UUM. Hence, the hypothesis H2 is accepted. This is because each dimension of quality of service has a positive and significant impact. Correlation analysis shows that tangible dimensions have the highest correlation of (r = 0.598) followed by the reliability dimension of (r = 0.416), the dimension of empathy of (r = 0.388), the responsiveness dimension of (r = 0.363) and dimension of assurance of (r = 0.313). After that, the most dominant factor for quality of service dimension is tangible because of higher significant other than dimension.

Table 6.

Correlation results

	ISO 9001:2015	Tangible	Empathy	Reliability	Responsiveness	Assurance
ISO9001:2015	1					
Tangible	.598**	1				
Empathy	.388**	.500**	1			
Reliability	.416**	.635**	.827**	1		
Responsiveness	.363**	.549**	.782**	.861**	1	
Assurance	.313*	.611**	.695**	.765**	.779**	1

**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

CONCLUSION AND SUGGESTION

In conclusion, the implementation of ISO 9001:2015 is important to identify the level of customer satisfaction at PKU, UUM, so that's easy for PKU to detect the weakness of service quality dimensions and also easier to allocate a number of resources in improving the quality of services offered to PKU's customer. The relationship between dependent variables and the independent variables examined is expected to improve the quality of service at PKU, UUM. The findings have proven that all SERVQUAL dimensions have a positive impact on customer satisfaction at PKU, UUM.

Besides that, based on finding result the quality of services provided by PKU, UUM is at a satisfactory level. However, the PKU, UUM, need to make improvements to the less dominant factor, for example assurance dimension that achieves the correlation value of

0.313 and responsiveness dimension that achieves the mean value of 3.58. PKU, UUM should increase the level of assurance and responsiveness dimension to attract more customers and make their customer feel comfortable by using service quality at PKU, UUM. In addition, the quality of service at PKU, UUM should be upgraded from time to time to provide convenience to customers that using PKU's service.

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