

การศึกษาเปรียบเทียบช่องว่างคุณภาพการให้บริการ  
ของศูนย์กักกันจากความคาดหวังและการรับรู้  
ของผู้ป่วยในเมืองย่างกุ้ง ประเทศพม่า

A COMPARATIVE STUDY OF THE SERVICE  
QUALITY GAP OF QUARANTINE CENTERS  
BASED ON PATIENTS' EXPECTATIONS AND  
PERCEPTIONS IN YANGON, MYANMAR

Received: 4 March, 2022

Revised: 12 May, 2022

Accepted: 22 May, 2022

นิน เวท ยี ไล\*

Hnin Wutt Yee Hlaing\*

สุนิดา พิริยะภาดา\*\*

Sunida Piriypada\*\*

---

\*นักศึกษาระดับปริญญาโทสาขาบริหารธุรกิจ คณะวิทยาลัยนานาชาติ สถาบันการจัดการปัญญาภิวัฒน์

\*Master Student of Business Administration, Faculty of International College, Panyapiwat Institute of Management

\*Email: 6271104282@stu.pim.ac.th / hazelhnin98@gmail.com

\*\*อาจารย์ประจำ คณะวิทยาลัยนานาชาติ สถาบันการจัดการปัญญาภิวัฒน์

\*\*Lecturer, Faculty of International College, Panyapiwat Institute of Management

\*\*Email: sunidapir@pim.ac.th

## บทคัดย่อ

การศึกษานี้มีวัตถุประสงค์เพื่อตรวจสอบช่องว่างคุณภาพการบริการระหว่างความคาดหวังของผู้ป่วยและการรับรู้ของศูนย์กักกันอย่างกึ่ง สาธารณรัฐแห่งสหภาพเมียนมาร์ และเพื่อศึกษาว่ามีมิติใดของบริการที่มีอิทธิพลมากที่สุดต่อคุณภาพการบริการที่รับรู้ โดยเน้นที่มิติคุณภาพบริการห้าประการเป็นหลัก ได้แก่ สิ่งที่ต้องได้ ความน่าเชื่อถือ การตอบสนอง การรับประกัน และความเห็นอกเห็นใจ และเพื่อศึกษาเปรียบเทียบช่องว่างของบริการระหว่างศูนย์กักกันของรัฐและสถานบริการ ประชากรเป้าหมายของการศึกษานี้คือผู้ที่เดินทางกลับจากต่างประเทศมายังเมียนมาร์ในช่วงโควิด-19 ระลอกแรกในปี 2563 การวิจัยเชิงปริมาณดำเนินการเพื่อรวบรวมข้อมูลจากกลุ่มตัวอย่างที่ถูกต้องจำนวน 400 ตัวอย่าง ผ่านทั้งแบบสำรวจออนไลน์และแบบสอบถามที่ใช้กระดาษเป็นหลัก ที่มีประสบการณ์ด้านคุณภาพการบริการจากศูนย์กักกัน

ความน่าเชื่อถือของการศึกษานี้ได้รับการตรวจสอบโดยใช้ค่าครอนบาช อัลฟา 0.7 ขึ้นไป การทดสอบ t-test แบบจับคู่ใช้สำหรับการวิเคราะห์ข้อมูลเพื่อทดสอบช่องว่างของบริการระหว่างความคาดหวังและการรับรู้คุณภาพการบริการ ผลการวิจัยพบว่าการรับรู้ของผู้ป่วยในศูนย์กักกันนั้นเกินความคาดหวังทั้งหมด จากผลวิจัยช่องว่างระหว่างความคาดหวังและการรับรู้คุณภาพการบริการของศูนย์กักกันทั้งสองประเภทนั้นเป็นบวกทั้งหมด การรับประกันเป็นองค์ประกอบที่สำคัญที่สุดที่ผู้ป่วยให้คะแนนโดยศูนย์กักกันของภาคเอกชน ในขณะที่องค์ประกอบที่จับต้องได้เป็นมิติที่มีอิทธิพลมากที่สุดสำหรับศูนย์กักกันของรัฐ นอกจากนี้ยังพบว่าคุณภาพการบริการโดยรวมของศูนย์กักกันของภาคเอกชนดีกว่าศูนย์กักกันของรัฐมาก จากผลวิจัยข้างต้นการทำวิจัยในอนาคตอาจจะพิจารณาเพิ่มศูนย์กักกันประเภทอื่นๆ ในภูมิภาคทางภูมิศาสตร์ที่แตกต่างกัน

**คำสำคัญ:** คุณภาพการให้บริการ ศูนย์กักกัน ช่องว่างการให้บริการ ความคาดหวัง การรับรู้

## Abstract

This study aimed to examine 1) the service quality gap between patients' expectations and perceptions of quarantine centers in Yangon, Myanmar and 2) to investigate what dimensions of the service are the most influence on the perceived service quality which mainly focused on five service quality dimensions; Tangibles, Reliability, Responsiveness, Assurance, and Empathy then 3) the service gap comparisons between state and facility quarantine centers was also mentioned. The target population of this study was people who have returned from the foreign countries to Myanmar during COVID-19 first wave in 2020. The quantitative research was administered to collect data from 400 valid samples via both online survey form and paper-based questionnaires from those who have experienced with service quality offered by quarantine centers.

The reliability of this study was checked by using the standard Cronbach's Alpha values 0.7 and above. The paired t-test was used for data analyzing to test a service gap between expectation and perception of service quality. The results revealed that the perceptions of patients on quarantine centers are surpassed over their expectations. As results, the gap between expectation and perception for both types of quarantine were wholly positive. Both quarantine types also can be concluded that they have board perspectives of what patients expect from the center and how to satisfy them. Assurance was the most important component rated by patients since facility quarantine centers while tangible component was found as the most influence dimension for the state quarantine type. It also found that overall perceived service quality of facility quarantine is more excellent than the state quarantine center. Based on these results, future research might consider enlarging the scope to conduct from different quarantine centers and different geographical regions.

**Keywords:** Service Quality, Quarantine Centers, Service Gap, Expectations and Perceptions

## 1. Introduction

The new coronavirus (COVID-19) was announced as a global pandemic on 11th March 2020 where the virus infected 23.3 million people and killed in the number of 741,000 people from 210 countries throughout the world (World Health Organization, 2020). The impact of this crisis became the reason to return home country a few months for most of experts and people who were staying in foreign countries. At that time, thousands of Myanmar people were returning back to Myanmar from abroad by both land and air. The Ministry of Health and Sport needed to prepare many quarantine facilities which had been established across the country to host up to returnees from the aboard. There were two quarantine centers operated by the Central Government of Myanmar during the first wave of COVID-19 such as state quarantine center operated in the public hospitals and monasteries and facility quarantine center proceeded in specified hotels. These quarantine centers may differ each other by its own service quality. Service quality means as an elusive and limited approach that is difficult to define and measure (Parasuraman, Zeithaml, & Berry, 1985; Kasper et al., 2006; Kotler & Armstrong, 2010; Bateson & Hoffman, 2011; Sower, 2011). Based on the quarantine centers, people may surely expect what they would like to have and they might check whether they had met their expectations to their perceptions or not. Expectations are needs and wants of people which they demand from service providers. Individual interpretation of its own experience that people received from service providers are called as Perceptions. Customers always assess the service quality of an organization by standardizing with their feelings of what the people in the organization should have to behave and offer to their actual performance (Gronroos, 1982). Consequently, people kept conducting about their opinions on the quality of service that they received from quarantine centers that they had. Perceived service quality can be denoted as the overall quality or image of the product or service or the brand itself corresponding to its purpose of use as against its alternatives (Parasuraman, Zeithaml, & Berry, 1988). Hence, the service quality of every quarantine center was becoming trends on social media and in the real practice to suggest for making a choice to quarantine.

### 1.1 Research Objectives

1. To test the gap between the perception and expectation of service quality of both state and facility quarantine centers
2. To investigate what dimensions of the service quality are the most influence on perceived service quality
3. To compare service gap of both types of the quarantine centers

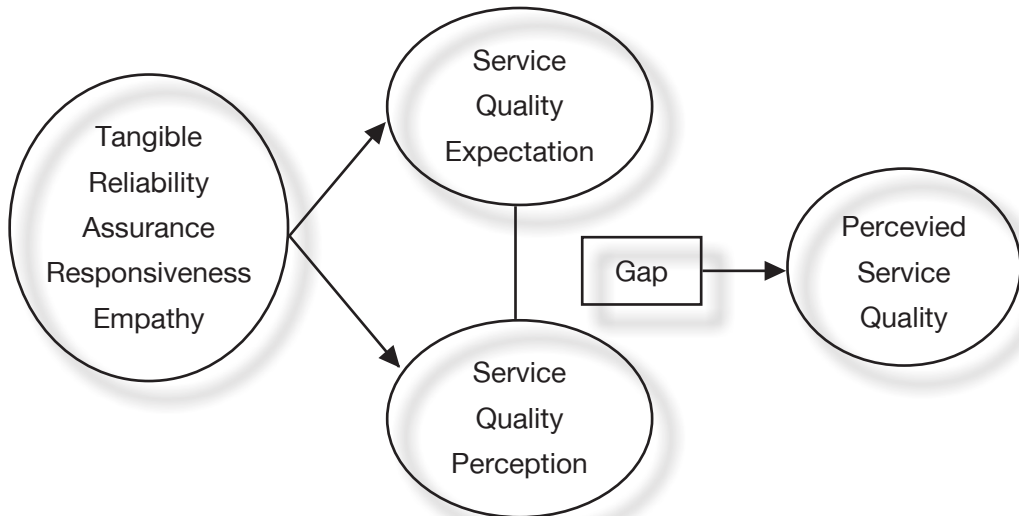
## 2. Literature Review

A service can be defined in many different ways depending on which area the term is being used. Service quality is not only important for organizations to live in the competitive environment but also plays as a strategic key factor for them to understand individually their products and services from their competitors by utilizing it. Many researchers recommend that customers always evaluate the service quality of an organization by standardizing with their feelings of what the people in the organization should have to behave and offer to their actual performance (Gronroos, 1982). Asubonteng, McCleary, and Swan stated in 1996 that the most popular scale to measure service quality is the (SERVQUAL) measurement developed by Parasuraman et al. (1985). There were five dimensions (SERVQUAL) which have been consistently ranked by customers to be the most important for service quality in late 1988 like reliability, responsiveness, empathy, assurance and tangibles accordingly. The ability to perform the promised service both dependably and accurately is called as reliability (Zeithaml, Parasuraman & Berry, 1990). Then, responsiveness is the willingness to give a hand to customers and provide prompt services while the term empathy in 1990 is caring, easy access, customer understanding and individualized attention delivered to customers according to Zeithaml, 1990. Service quality expectation is formed by controllable factors which are explicit service promises and implicit service promises and uncontrollable factors such as word-of-mouth communication, past experiences, perceived role, situational factors and predicted service (Parasuraman, Berry, & Zeithaml, 1993). Referring to the suggestion of Zeithaml, Parasuraman and Berry (1990), knowledge and courtesy of employees and ability to convert trust and confidence in service providers is called assurance. Zeithaml also claimed in 1990 that tangible is defined as physical facilities, equipment, communication materials

and the appearance of employees which the customers can feel and touch in the organizations. Perceived quality states that the opinions of customers on the total quality or image of a product or service with respect to its purpose of use as against its alternatives. Zeithaml and Bitner (2003) argued that perceptions may migrate over therefore it is important for companies to continually evaluate customer perceptions. Customer perceived value is measured, and those perceptions are changed through the marketing-mix elements. Perceived quality might not be linked to the actual product but is more altered towards the brand image, customer experiences with the brand and its other products, peer opinions and so on. Therefore, perceived service quality differs from product quality, product-based quality and manufacturing quality. In order to analyze the effects of the organization's competitive advantage and prevention to the wasting of resources on the dimensions of service quality, it is important to provide sufficient information on the grounds of the customer's perception to help organizations. In reality, most customer-oriented organizations always set their activities based on the expectations and preferences of their customers and they are able to satisfy the needs and expectations of customers and consider their expectations as the essence of service quality standards. The outcome of a comparison between expectations and perceptions towards the service that customers received are generally named as perceived service quality (Gronroos, 1982). According to Parasuraman et al. (1988) nevertheless perceived service quality is a global judgement of superiority of a service, the customer's satisfaction is specific to encounters or transactions. Eventually, it is sure many customers will compare the expected service with the perceived service that results as the perceived service quality. If the perceived service does not align with the expected service, there will be a gap between the expected and the perceived service which means the service provider is failure to respond or examine what is the customers' needs and wants (Parasuraman et al., 1985). The PZB service model mentioned that the gap between expected service and perceived service should be reduced if companies wish to promote each aspect of their service quality (Parasuraman et al., 1985; Zeithaml and Berry, 1988).

## 2.1 Conceptual Framework

This is the applicable conceptual framework developed by previous studies for this research.



**Figure 1** Conceptual Framework

Note: Adopted from Parasuraman et al. (1988) and Zeithaml and Berry (1988)

## 3. Research Methodology

### 3.1 Population and Samples

This study was significantly focused on quantitative approach with cross-sectional studies to investigate perceived quality and the performance of quarantine centres in Myanmar for returnees during COVID-19 first wave situations. The target population of this study was people who have returned from the foreign countries to Myanmar within this disaster. According to The United Nations Office for the Coordination of Humanitarian Affairs (2020), there were over 10 million returnees from different parts of the world. A convenience sampling was used to analyze the respondents who have experienced quarantine centres in Myanmar. This method was chosen to be easy to find for the respondents and it will reduce time consuming. When the sample size was calculated, this study was applied the method of sample size calculation which is suggested by (Green, 1991). The formula of this method is  $N \geq 50 + 8(5) = 90$ . Although the result showed to collect the data from the minimum 90 respondents, the researcher selected 200

respondents to get a more appropriate study. Hence, the sample size of this study was 200 respondents per each type of quarantine whereas 200 in the state quarantine center and another 200 in the facility quarantine center so the total sample size is 400 respondents for this study. Samples were chosen in a random and convenient manner regardless of age, gender and ethnicities.

### **3.2 Research Instrument**

Item-Objective Congruence (IOC) was used to evaluate the content validity for the assessment of unidimensional items (Hambleton & Rovinelli, 1986) therefore each item of the questionnaire was checked by three experts for feedbacks and evaluations. A convenience sampling was chosen to be easy to find for the respondents as well as to reduce time consuming. The questionnaire items were measured by Five-point Likert scales ranging from 1 to 5 whereas 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree and 5= Strongly Agree. So that, the respondents had answered to choose the number of that scale based on their quarantine experiences in Myanmar throughout their expectations and perceptions to access whether they meet their satisfaction level or not as well as the quarantine centers performance during their quarantine period.

### **3.3 Method of Analysis**

To make sure the consistency of the questionnaires of each factor, a pilot test was conducted with 30 respondents for both types with the questionnaire in English before the actual data collection. As soon as the pilot survey had been done, the questionnaires were translated by an expert agency to Myanmar version from English version to obtain more users friendly experiences and to refrain language barriers. The translated questionnaires were conducted through both online and offline because of the unstable political conditions of the targeted country. Finally, described statistical analysis, reliability of Cronbach's Alpha and paired T-test were applied to check in this study.

## **4. Empirical Results**

There are two parts of data analysis in this study. While part one is asking about the information related to the respondents' demographic and general profile with closed-end questions type. Part two is about the questions of all scaled



items of variables used in this research and will use the five-point Likert scales with the level of agreement. Descriptive Statistics was utilized to describe the appropriate result for the respondents' profiles in the first. Then, the collected responses were checked by using the standard Cronbach's Alpha values 0.7 and above to be the acceptable internal consistency (Hair, Bush, & Ortinau, 2009). After that, Paired T-test was also used for the gap between expectation and perception of service quality. The results and findings were presented in the following.

#### 4.1 Demographic factors of respondents

The overall responses for the demographic factors are presented in Table 1. According to the results of demographics factors, the most responses were from female. The obvious point is from 21 to 30 years who participated the most in the survey. The highest involvement of the respondents is significantly at graduate level which accounts for 40% of the respondents and most of the respondents have the average income ranging from 500,001MMK to 1,00,000MMK monthly. The largest occupation group of the respondents are 33% of student.

**Table 1** Summary of Respondent Profiles

Demographics	Frequency	Percent
<b>Gender</b>		
Male	149	37%
Female	248	62%
Other	3	1%
<b>Age</b>		
Under 20 years old	72	18%
21 to 30 years old	144	36%
31 to 40 years old	100	25%
41 to 50 years old	48	12%
Above 50 years old	36	9%
<b>Education Level</b>		
Undergraduate	130	33%
Graduate	158	40%
Postgraduate	68	17%
Other	44	11%

Demographics	Frequency	Percent
<b>Income Level</b>		
Below 200,000MMK	52	13%
200,001MMK to 500,000MMK	116	29%
500,001MMK to 1,000,000MMK	104	26%
1,000,001 MMK to 1,500,00MMK	96	24%
Above 1,500,000MMK	32	8%
<b>Occupation</b>		
Students	132	33%
Private Sector	120	30%
Business Owner	68	17%
Public Sector	48	12%
Other	32	8%

#### 4.3 Paired samples t-test for components of each dimension of service quality

**Table 3** Paired samples t-test for the State quarantine type

Dimension	Statement	Perception Mean (SD)	Expectation Mean (SD)	Gap value	t-value	P-value
Tangible	Comfort, cleanness and competence of the provided facilities	3.940 (0.975)	3.240 (0.858)	0.700	7.280**	0.000
	Skillfulness and proficiency of the medical staffs	3.980 (1.007)	3.295 (0.838)	0.685	7.171**	0.000
	Conditions of rooms in the quarantine center	4.000 (1.003)	3.295 (0.873)	0.705	7.277**	0.000
	Food Supports	3.760 (1.117)	3.200 (0.956)	0.560	5.259**	0.000
	Delivering of Given instructions and information	4.000 (0.992)	3.370 (0.784)	0.630	7.131**	0.000

Dimension	Statement	Perception Mean (SD)	Expectation Mean (SD)	Gap value	t-value	P-value
Responsiveness	Communication processes of the staff	3.990 (1.022)	3.315 (0.860)	0.675	6.909**	0.000
	Providing services to the patient's complaints and problems	3.915 (1.016)	3.225 (0.835)	0.690	7.149**	0.000
	The competency to diagnose and provided needed medical solutions	3.965 (1.048)	3.325 (0.750)	0.640	7.071**	0.000
	The speed of process done for the required tests	3.940 (0.980)	3.375 (0.753)	0.565	6.629**	0.000
	The goodwill of quarantine center	3.935 (0.967)	3.265 (0.773)	0.670	8.101**	0.000
Reliability	Providing services by using effective and efficient techniques.	3.910 (1.038)	3.370 (0.841)	0.540	5.665**	0.000
	Explanations about information and procedures during quarantine	3.915 (0.991)	3.370 (0.810)	0.545	5.832**	0.000
	Intentions of staffs from the center to the patient's needs and conditions	3.895 (0.1010)	3.370 (0.779)	0.525	5.599**	0.000
	The adequacy of explanation to the patients before taking swab	3.885 (1.071)	3.345 (0.793)	0.540	6.025**	0.000
	Performances of professional staffs	3.975 (0.984)	3.360 (0.750)	0.615	6.866**	0.000
Empathy	Care and responsiveness of the staff	3.975 (0.878)	3.402 (1.103)	0.573	5.938**	0.000
	Patient level of staffs in providing services.	3.970 (1.070)	3.385 (0.877)	0.585	5.875**	0.000
	Understanding individual needs of patients from medical staffs	3.930 (1.035)	3.325 (0.789)	0.605	6.687**	0.000

Dimension	Statement	Perception Mean (SD)	Expectation Mean (SD)	Gap value	t-value	P-value
Empathy	Competency of taking swab	3.415 (1.017)	3.875 (0.757)	0.460	5.744**	0.000
	Courtesy and supportiveness of the staff	4.015 (0.969)	3.415 (0.823)	0.600	7.005**	0.000
Assurance	Utilizing the high quality of service atmosphere	3.920 (1.004)	3.380 (0.780)	0.540	6.142**	0.000
	Safety and security during their quarantine period	4.015 (0.995)	3.450 (0.794)	0.565	6.370**	0.000
	The expert knowledge of the staff	3.885 (1.023)	3.350 (0.742)	0.535	6.104**	0.000
	Discrimination about delivering services	4.115 (0.925)	3.355 (0.832)	0.760	8.718**	0.000
	Reputation of the quarantine center	3.990 (0.924)	3.440 (0.774)	0.550	6.759**	0.000

\*\*p < 0.01

According to the results of the paired t test in this table, it indicates that there is a statistically significant difference ( $p < 0.01$ ) between patients' perceptions and expectations for all examined attributes. The results indicate that the state quarantine center is good in meeting patient's expectations.

**Table 4** Paired samples t-test for the Facility quarantine type

Dimension	Statement	Perception Mean (SD)	Expectation Mean (SD)	Gap value	t-value	P-value
Tangible	Comfort, cleanness and competence of the provided facilities	4.085 (0.884)	3.795 (0.803)	0.29	3.160**	0.002
	Skillfulness and proficiency of the medical staffs	4.090 (0.846)	3.730 (0.806)	0.36	4.386**	0.000
	Conditions of rooms in the quarantine center	4.095 (0.900)	3.755 (0.811)	0.34	3.937**	0.000
	Food Supports	3.750 (1.124)	3.765 (0.868)	0.015	0.136	0.892
	Delivering of Given instructions and information	4.090 (0.875)	3.740 (0.772)	0.35	4.021**	0.000

Dimension	Statement	Perception Mean (SD)	Expectation Mean (SD)	Gap value	t-value	P-value
Responsiveness	Communication processes of the staff	4.150 (0.884)	3.750 (0.755)	0.4	4.786**	0.000
	Providing services to the patient's complaints and problems	4.085 (0.966)	3.790 (0.780)	0.295	3.252**	0.001
	The competency to diagnose and provided needed medical solutions	4.150 (0.813)	3.780 (0.778)	0.37	4.608**	0.000
	The speed of process done for the required tests	4.115 (0.892)	3.775 (0.753)	0.34	3.977**	0.000
	The goodwill of quarantine center	4.035 (0.921)	3.725 (0.701)	0.31	4.143**	0.000
	Reliability	Providing services by using effective and efficient techniques.	4.145 (0.859)	3.800 (0.743)	0.345	4.211**
Explanations about information and procedures during quarantine		4.120 (0.830)	3.760 (0.758)	0.36	4.635**	0.000
Intentions of staffs from the center to the patient's needs and conditions		4.140 (0.924)	3.790 (0.924)	0.35	3.714**	0.000
The adequacy of explanation to the patients before taking swab		4.150 (0.867)	3.770 (0.748)	0.38	4.621**	0.000
Overview on service charges		4.025 (0.937)	3.735 (0.811)	0.29	3.290**	0.001
Empathy		Care and responsiveness of the staff	4.125 (0.780)	3.750 (0.902)	0.375	4.342**
	Patient level of staffs in providing services.	4.105 (0.721)	3.735 (0.893)	0.37	4.097**	0.000
	Understanding individual needs of patients from medical staffs	4.120 (0.871)	3.805 (0.721)	0.315	3.816**	0.000
	Competency of taking swab	4.020 (0.874)	3.760 (0.772)	0.26	3.226**	0.001
	Courtesy and supportiveness of the staff	4.110 (0.873)	3.755 (0.767)	0.355	4.265**	0.000

Dimension	Statement	Perception Mean (SD)	Expectation Mean (SD)	Gap value	t-value	P-value
Assurance	Utilizing the high quality of service atmosphere	4.130 (0.887)	3.825 (0.753)	0.305	3.558**	0.000
	Safety and security during their quarantine period	4.255 (0.821)	3.845 (0.764)	0.41	5.254**	0.000
	The expert knowledge of the staff	4.105 (0.859)	3.720 (0.765)	0.385	4.825**	0.000
	Discrimination about delivering services	4.275 (0.820)	3.835 (0.794)	0.44	5.516**	0.000
	Reputation of the quarantine center	4.195 (0.806)	3.760 (0.797)	0.435	5.758**	0.000

\*\*p < 0.01

Based on the results of the paired t-test in this table, it indicates that there is a statistically significant difference ( $p < 0.01$ ) between patients' perceptions and expectations for all examined attributes. The results indicate that the facility quarantine center has a good job in meeting patient's expectations. But the t-test result of one variable for this type of quarantine center is 0.015 ( $p > 0.05$ ) not statistically significant. Hence, this variable has a difference between patients' perception and expectation of service quality.

The gap between expectation and perception for both types of quarantine were wholly positive. Service providers for both quarantine types had received positive feedbacks which means staffs from quarantine centers well delivered to the patients so it shows positive gap between expectation and perception. Both quarantine types also can be concluded that they have board perspectives of what patients expect from the center and how to satisfy them. The overall service quality is expected well by the patients and they also received their actual experience according to their expectations. In the end, all variables are mentioned had good results and the perceptions from the patients totally met with the patients' expectations.

### 3.4 Perceived service quality by dimensions for Quarantine Centers

**Table 5** Perceived service quality by SEVQUAL dimensions for the State Quarantine Type

Dimension	Perception (P)	Expectation (E)	Service gap (P-E)	t-value	P value	Prioritizing the Dimensions
Tangible	3.936(0.883)	3.280(0.726)	0.656	7.550**	0.000	1
Responsiveness	3.949(0.881)	3.301(0.660)	0.648	8.038**	0.000	2
Reliability	3.567(0.490)	3.363(0.665)	0.204	5.800**	0.000	3
Empathy	3.607(0.497)	3.545(0.490)	0.062	8.224**	0.000	4
Assurance	3.560(0.485)	3.520(0.494)	0.04	6.101**	0.000	5

Note: n = 200, All five dimensions had statistically significant positive service quality gaps,  $P < 0.001$

**Table 6** Perceived service quality by SEVQUAL dimensions for the Facility Quarantine Type

Dimension	Perception (P)	Expectation (E)	Service gap (P-E)	t-value	P value	Prioritizing the Dimensions
Tangible	4.022(0.781)	3.757(0.723)	0.265	7.550**	0.001	5
Responsiveness	4.107(0.776)	3.764(0.650)	0.343	8.038**	0.000	3
Reliability	4.116(0.777)	3.771(0.666)	0.345	5.800**	0.000	2
Empathy	4.096(0.790)	3.761(0.657)	0.335	8.224**	0.000	4
Assurance	4.192(0.749)	3.797(0.687)	0.395	6.101**	0.000	1

Note: n=200, All five dimensions had statistically significant positive service quality ga,  $P < 0.001$

Both Table 5 and 6 show the average scores of expectations, perceptions and perceived service quality gaps for the five SERVQUAL dimensions. All five dimensions had statistically significant positive service quality gaps ( $p < 0.05$ ) as seen.

According to the results of tables, Tangible is found as the most influence dimension for the state quarantine type. This is possible because many patients might expect that they would receive moderate services since they chose the state quarantine type but in reality, services that they received were more than what they thought since the facility provision, food and other supplies and the infrastructure were beyond their imagination. As the facility quarantine, it created a large positive gap among respondents as Assurance is the most important component rated by patients since facility quarantine centers put efforts more than necessary because the owners of facility quarantine center need to gain greater the market share.

### 3.5 Comparative results of overall service quality of both quarantine centers

**Table 7** Comparative results of overall service quality of both Quarantine Centers

Dimension	State Quarantine Center				Facility Quarantine Center			
	Perception (P)	Expectation (E)	Service gap (P-E)	Prioritizing dimensions	Perception (P)	Expectation (E)	Service gap (P-E)	Prioritizing dimensions
Tangible	3.936	3.280	0.656	1	4.022	3.757	0.265	5
Responsiveness	3.949	3.301	0.648	2	4.107	3.764	0.343	3
Reliability	3.567	3.363	0.204	3	4.116	3.771	0.345	2
Empathy	3.607	3.545	0.062	5	4.096	3.761	0.335	4
Assurance	3.560	3.52	0.040	4	4.192	3.797	0.395	1
<b>Total</b>	<b>18.619</b>	<b>17.009</b>	<b>1.610</b>		<b>20.533</b>	<b>18.850</b>	<b>1.683</b>	

The overall perceived service quality of facility quarantine is more excellent than the state quarantine center. The total service gap for state quarantine centers is 1.610 whereas the total service gap of facility quarantine centers is 1.683. All of dimensions from facility quarantine center are better in state quarantine center which denotes that service providers from facility quarantine centers are highly capable. After ranking each dimension of service quality by their gap results,



tangible is the highest and assurance is the lowest for state quarantine centers but on the other hand, assurance is the highest and tangible is the lowest for facility quarantine centers.

## 5. Discussion

According to the result of paired t-test, all of the variables are less than 0.01 for the state quarantine type. Hence, mean differences between perception and expectation for this type is statistically significant. It indicates that there is a variation between means of expectation and perception. Moreover, it points out high mean gaps of expectation and perception for the facility quarantine center type.

Based on the gap difference between all variables of the expectation and perception, the results of paired t-test for one attribute in the facility quarantine center type is found as its p-value is greater than 0.05. This is found in one component of tangible dimension. Therefore, the mean gap of one component in tangible is not significant but all the rest of variables are less than 0.01. These results refer that they are significant. Even though both of quarantine centers have achieved over all the expectations of service quality, the overall service gap of facility quarantine center for responsiveness is less than state quarantine center. Based on this result, it can conclude that responsiveness of state quarantine center is more satisfactory. By comparing these two scores of quarantine centers, it found that providing services to the patient's complaints and problems is least rated by patients from facility quarantine centers which seems there is a misunderstanding about the patients' responses from service providers. Therefore, managers of state quarantine should take a short time to solve complaints and they should be likely to receive more feedbacks that their quarantine center failed to provide. Moreover, patients' complaints have to be followed up by telephone call and suggested that reply/actions taken should be more standardized.

For the component of reliability, it occurs like facility quarantine center was better in ease of showing interest and handling patients' problems and performing the accurate services. So, the results express facility quarantine centers were delivering better reliable services than the state quarantine centers. When the component for empathy of both quarantine centers' analysis is made, it is discovered that private service providers in facility quarantine centers have wills to

serve much to their services to patients than by state quarantine centers. When the assurance of both quarantine centers is compared, the results highlight that patients feel safer and more comfortable in facility quarantine centers. One more thing observed is that service providers in facility quarantine centers have enough knowledge and spontaneous attitudes to response the patients' complaints. But the service gap is less in state quarantine as compared to facility quarantine centers for this component.

## 6. Conclusion

This study had been found patients expectation based on the five-point Likert scale for each five service quality dimensions was rated from the highest tangible to the lowest assurance in state quarantine centers. But there are reversely results in facility quarantine centers whereas the highest one is assurance and the lowest is tangible. Furthermore, the average scores of expectations, perceptions and perceived service quality gaps for all five SERVQUAL dimensions had statistically significant positive service quality gaps ( $p < 0.05$ ). Regarding to the results, it can conclude that the service quality of both quarantine centers was perceived well by the patients.

Even though the service quality perceptions of state quarantine centers were greater than expectations, the positive service gap regarding tangible and responsiveness were significantly greater than other dimensions which revealed that patients felt safe, comfortable and peaceful to spend their days in state quarantine centers despite they were free of charges. The service gap was lower in dimensions of assurance, empathy which describe the weakness of providing prompt services and understanding to patients' needs. It is very important for private owned quarantine centers like facility quarantine centers improve and maintain their standard of delivered service. And, it is very necessary to generate and improve confidence among patients and to give utmost safety to their patients in facility quarantine centers. The service gap was comparatively better than state quarantine centers, they should be very careful because there are strongly competitive among facility quarantine center markets. The expectations of customers will be high due to the variety of choices in the market therefore facility quarantine centers should give greater effort to meet their patient satisfactions.

### **6.1 Managerial implication**

Based on the results of the study, one of the managerial implications is that the owners of facility quarantine center might also have to rethink about the allocation of the money into their businesses which are invested on hotel decorations and other facilities. They should also improve their relationships with employees because they have direct relationships with the patients. Therefore, two dimensions of service quality: reliability and empathy have less gaps between expectation and perception. The government should also examine the lowest ranks which are reliability and assurance of state quarantine centers to know what kinds of services are needed to grant such as providing great care, prompt services and the skillfulness and professionalism of the staff when they deliver their service to patients. It is also important to focus on the patients' individualized needs and requirements to be good at the empathy dimension. In summary, both types of quarantine centers can improve by providing up-to-date equipment, quick respond to solve their difficulties, offering cares and individualized attention to their patients on the side of service quality. All of these activities can improve patients perceived value which can develop high patient satisfaction. Higher satisfaction leads to high investment of the firm. Improvement in service quality leads to the results of patients' satisfaction outcomes especially for facility quarantine centers.

### **6.2 Recommendation for future research**

This study investigated the gap of service quality between patient's expectation and perception. However, potential limitations may still exist. Firstly, the sample used to test the model was collected from the patients who have experienced with quarantine center in Yangon, Myanmar. Therefore, it cannot be generalized to all quarantine center in nationwide. In addition, all the respondents are the patients are whoever come back from foreign country. Therefore, it cannot be representative for patients who infected COVID-19 in the country. The dimensions used to test the service quality were also based on the SERVQUAL dimensions. According to the research limitation, future research might consider enlarging the scope to conduct from different quarantine centers and different geographical region. In addition, five variables of SERVQUAL were used in testing service quality too. Therefore, future studies should extend with different measurement for service quality. Furthermore, future studies should also include fair mix of occupational and income factors, in order to generalize the customers of an industry. Moreover, they should focus to conduct on those who were infected and being exposure of COVID-19 patients about their quarantine experiences.

## Bibliography

- Andaleeb, S. (1998). Determinants of customer satisfaction with hospitals: A managerial model. *Int J Health Care Q Assur*, 11, 181-187.
- Asubonteng, P., McCleary, K. J., & Swan, J. E. (1996). SERVQUAL revisited: A critical review of service quality. *Journal of Services Marketing*, 10(6), 62-81. <https://doi.org/10.1108/08876049610148602>
- Bateson, J. E., & Hoffman, K. D. (2011). *Services marketing* (4<sup>th</sup> ed.). Boston, MA: Cengage Learning.
- Berry, L. L., Parasuraman, A., & Zeithaml, V. A. (1988). The service quality puzzle. *Business Horizons*, 31(5), 35-43.
- Buttle, F. (1996). SERVQUAL: Review, critique, research agenda. *European Journal of Marketing*, 30(1), 8-32.
- Camgöz-Akdag, H., & Zineldin, M. (2010). Quality of health care and patient satisfaction: An exploratory investigation of the 5Qs model at Turkey. *Clinical Governance: An International Journal*, 15(2), 92-101.
- Caruana, A. (2002). Service loyalty: The effects of service quality and the mediating role of customer satisfaction. *European Journal of Marketing*, 16(7), 811-828.
- Chatterjee, S., & Chatterjee, A. (2005). Prioritization of service quality parameters based on ordinal response. *Total Quality Management & Business Excellence*, 16(4), 477-489.
- Cucinotta, D., & Vanelli, M. (2020, March). WHO declares COVID-19 a pandemic. *Acta Biomed*, 91(1), 157-160. Retrieved from <https://pubmed.ncbi.nlm.nih.gov/32191675/>
- Dagger, T. S., Svveeney, J. C., & Joohnson, L. W. (2007). A hierarchical model of health service quality scale development and investigation of an integrated model. *Journal of Service Quality*, 10(8), 23-42.
- Gronroos, C. (1982). A service quality model and its marketing implications. *European Journal of Marketing*, 18(4), 36-44.
- Gronroos, C. (1994). A service quality model and its marketing implications. *European Journal of Marketing*, 18(4), 36-44.
- Gronroos, C. (1994). From scientific management to service management: A management perspective for the age of service competition. *International Journal of Service Industry Management*, 15(1), 5-20.
- Gronroos, C. S. (1988). The six criteria of good perceived service quality. *Rev Bus*, 9(3), 10-13.
- Hair, J. F., Bush, R. P., & Ortinau, D. J. (2009). *Marketing research: In a digital information environment* (4<sup>th</sup> ed.). Boston: McGraw-Hill Irwin.

- Hambleton, R. K., & Rovinelli, R. J. (1986). Assessing the dimensionality of a set of test items. *Applied Psychological Measurement*, 10(3), 287-302. <https://doi.org/10.1177/014662168601000307>
- Kasper, H. V., van Helsdingen, P., & Gabbott, M. (2006). *Services marketing management: A strategic perspective* (2<sup>nd</sup> ed.). Chichester, West Sussex, England: John Wiley & Sons.
- Kotler, P., Armstrong, G., Saunders, J., & Wong, V. (2002). *Principle of marketing* (3<sup>rd</sup> ed.). England: Pearson Education.
- Ministry of Health and Sport Myanmar. (2020). Retrieved from <https://www.mohs.gov.mm>.
- Parasuraman, A., Berry, L. L., & Zeithaml, V. A. (1991). Understanding customer expectation of service. *Slogan Management Review*, 32(3), 39-48.
- Parasuraman, A., Berry, L. L., & Zeithaml, V. A. (1993). Research note: More on improving service quality. *Journal of Retailing*, 69(1), 140-147.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implication for future research. *Journal of Marketing*, 49(4), 41-50.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). Servqual: A multiple-item scale for measuring consumer perception. *Journal of Retailing*, 64(1), 12.
- Ramseook, M., Lukea-Bhiwajee, S., & Naidoo, P. (2010). Service quality in the public service. *International Journal of Management and Marketing Research*, 3(1), 37-50.
- Sower, V. (2011). *Essentials of quality*. Hoboken, NJ: John Wiley & Sons.
- United Nations Office for the Coordination of Humanitarian Affairs. (2020, April 27). *IOM Myanmar COVID-19 response situation report, 9 April 2020*. Retrieved from [https://reliefweb.int/report/myanmar/iom-myanmar-covid-19-response-situation-report-9-april-2020?msclid=8a3dcf96ce-f011ecb80244\\_a544cdebd4](https://reliefweb.int/report/myanmar/iom-myanmar-covid-19-response-situation-report-9-april-2020?msclid=8a3dcf96ce-f011ecb80244_a544cdebd4)
- World Health Organization. (2020). *Coronavirus disease (Covid 19) pandemic*. Retrieved from <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
- Yoon, T. H., & Ekinci, Y. (2003). An examination of the SERVQUAL dimensions using the Guttman Scaling Procedure. *Journal of Hospitality & Tourism Research*, 27(1), 3-23.
- Zeithaml, V. A., & Bitner, M. J. (2003). *Service marketing* (3<sup>rd</sup> ed.). New Delhi: Tata McGraw Hill.
- Zineldin, M., Akdag, H. C., & Belal, M. (2012). Total relationship management (TRM) and 5Qs model as new management techniques: A comparative study for a knowledge-intensive sector. *International Business and Management*, 4(1), 1-17.