

Analysis of Quarantine Service Quality on Ship Crew Satisfaction during the Covid-19 Pandemic at Belawan Sea Port

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Abstract

This study aims to analyze the quality of quarantine services on ship crew satisfaction during the Covid-19 pandemic at the Belawan Sea port. This study is a quantitative study with a cross sectional method which aims to analyze the quality of quarantine services on satisfaction during the COVID-19 pandemic at the Belawan Sea Port using the ServQual approach which consists of physical evidence, reliability, responsiveness, assurance, and empathy. The results of the study are expected to provide input regarding the quality of quarantine services provided by the Class I Medan KKP to ship crews during the COVID-19 pandemic. Based on the ServQual analysis, the results show that the satisfaction of the crew of the quarantine service at Belawan Port is very satisfying with a suitability level of 107.56% (the average service / reality score is 4.00 and the expectation score is 3.72). It is suggested to improve coordination and more intensive advocacy with shipping agents as intermediaries between officers and skippers as crew so as to reduce the length of service waiting time, in order to increase the number of human resources carrying out document checks on board, involving female medical officers for health checks The crew who came from affected countries/ports to facilitate information retrieval, ordered the boarding officers to bring Personal Protective Equipment when interacting with the crew.

Keywords: Quality, Service Quarantine, Tangibles, Reliability, Responsiveness

Introduction

Improving the quality of health services to the community is one of the goals of bureaucratic reform in order to accelerate the achievement of good governance in Indonesia. Indonesia is committed to realizing quality public services however, the current public services provided by government officials have not met the expectations of society. The government's inability to meet the expectations of society has resulted in negative perceptions from society (Putra, 2017), so that it can cause low public trust in the public health system in Indonesia

The quality of public services is a major indicator in good government administration, from the central government to local governments (James & John, 2007; Domingues et al., 2015; Andrews & Van, 2013). Based on the OECD (Organization for Economic Cooperation and

Development) report, the level of public trust in the Indonesian government reached 80% in 2016, an increase of 28% percent compared to the 2017 figure of 52%. The high level of public trust in the government shows that the community views the government as responsive and reliable in terms of providing protection and services to the community. However, state protection for the community during the COVID-19 pandemic including preparedness measures taken by the Indonesian state in dealing with the COVID-19 disaster in 2020 has not been optimal according to the Research Center for the DPR RI Expertise Agency (Suni, 2020) so that the first COVID-19 case in Indonesia was reported on March 2, 2020. With the increasing number of victims and property losses, the expanding coverage of areas affected by COVID-19 and having implications for broad socio-economic aspects in Indonesia, the President declared non-natural disasters caused by the spread of COVID-19 as a national disaster through Presidential Decree No.12 of 2020 on April 13, 2020. Previously, COVID-19 was declared a global pandemic on March 11, 2020 (World Health Organization (WHO), 2020). WHO emphasizes the importance of every country to make substantial efforts to strengthen the core capacity of preparedness in preventing, detecting, responding to public health emergencies including operational readiness in dealing with the COVID-19 pandemic as mandated by the IHR (*International Health Regulations*) 2005 (Kandel et al., 2020).

The Medan Class I Port Health Office as the UPT (Technical Implementing Unit) of the Ministry of Health also carries out functions of implementation, facilitation and advocacy for the preparedness and handling of Extraordinary Events (KLB) and disasters in the health sector in the airport and port work areas as the entrance to the state in accordance with mandates Republic of Indonesia Minister of Health Regulation Number 356 of 2008 in North Sumatra (Parasuraman et al., 1988). This preparedness effort is carried out through the supervision of transportation means, people, goods, and the environment coming from areas/countries affected by COVID-19 carried out by KKP and coordinating with related sectors.

Belawan Port is the main port in North Sumatra which has a very strategic location because it is only 13.5 km away from the international shipping route of the Malacca Strait. This port is located on a peninsula land which is the mouth of the confluence of two rivers, namely Belawan and Deli. Geographically, its position is at 03 ° 47 '20' 'North Latitude and 98 ° 42' 08 " East Longitude, so that administratively the area is located within the regional government of Medan City.

In carrying out these tasks, the function of implementing the quarantine is the first function performed by the CTF at the entrance to the state. Health Quarantine according to Law No. 6/2018 is an effort to prevent and prevent the exit or entry of diseases and/or public health risk factors that have the potential to cause public health emergencies.

Ship quarantine services at Belawan Port include monitoring the arrival and departure of ships including passengers and crew (crew) from and to Indonesia and abroad, providing ship health document certificates (SSCC, SSCC, disinfection, fumigation, sailing permits, ship health books) including monitoring the arrival/departure of the sick as follows.

From the data on the number of crew (ABK) above, the number of crew who came from abroad reached 40,732 people and departed as many as 25,978 people. Domestically, the number of crew who came reached 41,097 people and departed as many as 43,141 people.

Based on the survey report on public satisfaction, the enthusiasm and satisfaction of service users in the implementation of health conditions by the Medan KKP at the port of Belawan are in the good service quality category in 2019. However, during the COVID-19 pandemic in 2020, an evaluation of the health quarantine services has not been carried out by the Medan KKP, especially at Belawan Port. This is due to the policy of the port that all ships that want to enter the port must first dock at Lamp I. This policy is in accordance with the Minister of Health Decree No.612/MENKES/SK/V/2010 concerning Guidelines for the Implementation of Health Quarantine in Community Health Emergency Management which concerns the world that ships are only allowed to release anchor in the quarantine zone.

Methods

This study used a survey research method with a cross sectional approach, this study aims to analyze the quality of ship quarantine services on the satisfaction of service users at the Port of Belawan using the Servqual model developed by Parasuraman et al. (1988).

Satisfaction of service users with service quality is based on the level of a person's feelings after comparing the performance he feels (perceptions) against his expectations (expectations) (Angelova & Zekiri, 2011; Chang et al., 2009; Bennett & Barkensjo, 2005). Service quality is seen from five service dimensions, namely tangible, reliability, responsiveness, assurance, and empathy dimensions. Next, use the "Important Performance Analysis" to determine priority improvements and present what attributes need to be maintained and need to be improved by the Class I Medan KKP management at Belawan Port.

The population is all crew members who are supervised upon arrival or departure of the ship. Based on the 2019 Medan KKP Profile report, the number of ship crews arriving and departing through the Port of Belawan is 150,948 people. The average number of crew members arriving and departing each month is 12,579 people. This research was conducted during the COVID-19 pandemic from September 2020 to October 2020. So the number of samples taken based on the Slovin formula is at least 99 people, rounded up to 100 respondents. The sampling technique used in this study is non-random sampling or non-probability sampling, where the sample is taken with a specific purpose or purpose.

Results and Discussion

Description of Satisfaction on the Dimensions of Physical Evidence of Service

The results of the analysis of the description of the satisfaction of the crew members regarding the physical evidence of quarantine services at the Port of Belawan in 2020 can be seen in the following table:

Table 1. Satisfaction of Ship Crew regarding Physical Evidence (Tangible) of Quarantine Services at Belawan Port in 2020

| Tangible Dimensions | Service/ Reality (x) | Hope (y) | Incompatibility (%) |
|--|-----------------------------|-----------------|----------------------------|
| Complete referral ambulance equipment | 3.25 | 3.25 | 100.00% |
| Condition of referral ambulance equipment | 3.9 | 3.25 | 120.00% |
| Complete PPE for officers during the COVID-19 pandemic | 4.2 | 4.05 | 103.70% |
| The condition and cleanliness of PPE clothes | 3.9 | 3.4 | 114.71% |

| | | | |
|---|-----------------|-----------------|----------------|
| for officers during the COVID-19 pandemic | | | |
| Complete medical examination equipment for officers during the COVID-19 pandemic | 4 | 3.85 | 103.90% |
| The condition of medical examination equipment for officers during the COVID-19 pandemic | 4 | 3.85 | 103.90% |
| Completeness of health measures for transportation means, people and goods | 3.9 | 3.39 | 115.04% |
| Completeness of media and information technology such as leaflets, brochures or online information delivered during the COVID-19 pandemic | 3.95 | 3.39 | 116.52% |
| TOTAL | X = 3.89 | Y = 3.55 | 109.39% |

Based on the table above, it is known that the satisfaction of the crew regarding the physical evidence of quarantine services at the Port of Belawan in 2020 is 109.39% with an average service value of 3.89 and an average expectation value of 3.55.

Description of Satisfaction on the Dimension of Service Reliability

The results of the analysis of the description of ship crew satisfaction regarding the reliability of quarantine services at the Port of Belawan in 2020 can be seen in the following table:

Table 2. Ship Crew Satisfaction regarding Reliability (Reliability) of Quarantine Services at Belawan Port in 2020

| Reliability dimension | Service/ Reality (x) | Hope (y) | Incompatibility (%) |
|--|----------------------|-----------------|---------------------|
| Certainty of service schedule (implementation of service time in accordance with the provisions) | 4.1 | 4.05 | 101.23% |
| The quality of the drug available to the patient | 4.02 | 3.4 | 118.24% |
| Service procedures are simple / straightforward | 4.06 | 3.85 | 105.45% |
| Clear and easy service administration requirements | 4.18 | 3.85 | 108.57% |
| Quarantine services are carried out quickly | 3.84 | 3.61 | 106.37% |
| Quality of evacuation equipment | 4.12 | 4.05 | 101.73% |
| Quality of human resources for inspectors | 3.79 | 3.51 | 107.98% |
| TOTAL | X = 4.02 | Y = 3.76 | 106.80% |

Based on the table above, it is known that the satisfaction of the crew regarding the reliability of quarantine services at the Port of Belawan in 2020 is 106.80% with an average service value of 4.02 and an average expectation value of 3.76.

Description of Satisfaction in the Responsiveness Dimension

The results of the analysis of the description of ship crew satisfaction regarding the responsiveness of quarantine services at the Port of Belawan in 2020 can be seen in the following table:

Table 3. Satisfaction of Ship Crew regarding Responsiveness of Quarantine Services at Belawan Harbor in 2020

| Responsiveness Dimensions | Service/ Reality (x) | Hope (y) | Incompatibility (%) |
|--|-----------------------------|-----------------|----------------------------|
| Waiting time for service delivery (before service) | 3.79 | 3.85 | 98.44% |
| Time of checking quarantine documents on board (during inspection) | 3.93 | 3.85 | 102.08% |
| Waiting time for document issuance (after inspection) | 4.4 | 3.4 | 129.41% |
| When checking the health condition of the conveyance | 4.06 | 4.05 | 100.25% |
| Response to transportation means health measures | 3.47 | 3.5 | 99.14% |
| Response to crew evacuation | 4.2 | 3.85 | 109.09% |
| TOTAL | X = 3.98 | Y = 3.75 | 106.00% |

Based on the table above, it is known that the satisfaction of the crew regarding the responsiveness of quarantine services at the Port of Belawan in 2020 is 106.00% with an average service value of 3.98 and an average expectation value of 3.75.

Description of Satisfaction in the Dimension of Assurance

The results of the analysis of the description of the satisfaction of the crew regarding the guarantee of quarantine services at Belawan Port in 2020 can be seen in the following table.

Table 4. Satisfaction of Ship Crew regarding Guarantee (Assurance) Quarantine Services at Belawan Port in 2020

| Assurance Dimension | Service/ Reality (x) | Hope (y) | Incompatibility (%) |
|--|-----------------------------|-----------------|----------------------------|
| Quarantine officers serve politely, kindly and carry out careful checks | 3.98 | 3.85 | 103.38% |
| Quarantine officers serve according to health protocols during the COVID-19 pandemic | 3.95 | 4 | 98.75% |
| Accuracy of checking health documents on transportation means | 3.88 | 3.5 | 110.86% |
| Accuracy of inspection of persons on means of conveyance | 4.28 | 3.85 | 111.17% |
| Accuracy of environmental health measures on conveyances | 4.14 | 3.85 | 107.53% |
| Speed and safety during the evacuation process | 3.86 | 3.85 | 100.26% |
| TOTAL | X = 4.02 | Y = 3.82 | 105.20% |

Based on the table above, it is known that the satisfaction of the crew regarding the guarantee of quarantine services at Belawan Harbor in 2020 is 105.20% with an average service value of 4.02 and an average expectation value of 3.82.

Description of Satisfaction in the Dimension of Empathy

The results of the analysis of the description of ship crew satisfaction regarding the empathy of quarantine services at Belawan Harbor in 2020 can be seen in the following table:

Table 5. Crew Satisfaction on Empathy (Empathy) of Quarantine Services at Belawan Harbor in 2020

| Empathy Dimension | Service/ Reality (x) | Hope (y) | Incompatibility (%) |
|--|-----------------------------|-----------------|----------------------------|
| Service users are given the opportunity to submit complaints about domestic services | 4 | 3.84 | 104.17% |
| The officer listens to patient complaints patiently and attentively | 4.12 | 4.05 | 101.73% |
| Justice in getting services (officers provide services without differentiating between groups/status of service users) | 4.07 | 3.5 | 116.29% |
| Officers always pay full attention to every inspection and health action on the transportation means | 4.17 | 3.4 | 122.65% |
| TOTAL | 4.09 | 3.70 | 110.62% |

Based on the table above, it is known that the satisfaction of the crew regarding the guarantee of quarantine services at Belawan Port in 2020 is 105.20% with an average service value of 4.02 and an average expectation value of 3.82.

Physical evidence of quarantine services at Belawan Port in this study is shown by the completeness and condition of the referral ambulance equipment, the completeness and condition of the officers' PPE clothes during the COVID-19 pandemic, the completeness and condition of the officers' medical examination equipment during the COVID-19 pandemic, the completeness of the medical equipment, transportation means, people and goods and equipment for media and information technology such as leaflets, brochures or online information submitted during the COVID-19 pandemic

Adequacy of infrastructure is proven to support the satisfaction score of service users (Ulandari & Yudawati, 2019). Where the service quality of the Tangible dimension element is considered satisfactory from the completeness of the equipment for health measures for transportation, people and goods.

All respondents were also satisfied with the completeness of media and information technology such as leaflets, brochures or online information delivered during the COVID-19 pandemic with a suitability level of 116.52%. The availability of media for counseling about diseases to increase health insights for patients is also one form of completeness of the facilities expected by patients, as in the research conducted by Hadiyati et al. (2017).

The constraints of quarantine services at Belawan Port in this study are indicated by the certainty of service schedules (implementation of service time is in accordance with the provisions), quality of medicines available to patients, simple/straightforward service procedures, clear and easy service administration requirements, service quarantine is carried out. Quickly, the quality of the evacuation equipment and the quality of human resources for inspectors.

Based on the research results, the quarantine service was assessed by the satisfactory quality of the evacuation equipment in the Class I KKP Medan. As with other research, service users expect the equipment used to use the latest (up-to-date) technology (Suharyanta & A'yunin 1978) but based on observations made on the state property report, KKP Class I Medan did not make purchases of quarantine evacuation equipment during 2020. This indicates that the equipment used by officers, although not using the latest technology (up to date), is still considered appropriate and satisfying for service users.

The responsiveness of quarantine services at Belawan Port in this study is shown by waiting time for service implementation (before service), time for examining quarantine documents on board (during inspection), waiting time for document issuance (after inspection), time for checking health conditions on transportation means. The response to the health measures of the transportation means and the response to the evacuation of the crew. The results showed that service users were dissatisfied with the responsiveness dimension in the waiting time for the implementation of the service (before service) with a conformity level of 98.44%. This was due to the factors of travel time, distance traveled, natural conditions and length of service. From the port side that all ships that want to enter the port must first dock at Lamp I.

This policy is in accordance with the Guidelines for the Implementation of Health Quarantine in the Response of Public Health Emergencies which is a World Concern that ships are only allowed to release anchor in the quarantine zone (Candra et al., 2016)

Assurance, quarantine services at Belawan Port in this study are shown by quarantine officers serving politely, kindly and conducting thorough checks, quarantine officers serving according to health protocols during the COVID-19 pandemic, accuracy of checking health documents on transportation means, accuracy of examinations people on the transportation means, the accuracy of environmental sanitation measures on the transportation means as well as the speed and safety during the evacuation process.

The results showed that the service users were satisfied with the assurance dimension on the elements of the quarantine officers serving politely, kindly and conducting thorough checks with a conformity level of 103.38%. The value of the level of conformity in this study was much higher than the value of the level of conformity regarding polite & friendly officers in the research conducted by Mas'ud at 4 pharmacies in Jakarta with values ranging from 89.04% - 90.99% (Hadiyati et al., 2017).

Based on the research results, service users are not satisfied with the assurance element in the attributes of quarantine officers serving according to health protocols during the COVID-19 pandemic. 3M's jargon, namely wearing a mask, keeping your distance and washing your hands with soap, is a common health protocol during the COVID-19 (Balakrishnan & Sasi, 2016). Expectations are high with service users that the implementation of health protocols during the COVID-19 pandemic is difficult to do with limited ship space conditions.

This is the reason service users consider quarantine services with health protocols during the COVID-19 pandemic to be less than optimal because officers do not keep the distance from the crew of the ship being examined. In addition, the journey of the quarantine inspector from Beawan Port to the quarantine zone has caused certain PPE to become unfit for use, such as torn masks or gloves.

Empathy (empathy) for quarantine services at Belawan Port in this study is shown by service users who are given the opportunity to submit complaints about poverty services, officers listen to patient complaints patiently and attentively, justice gets service (officers provide services without differentiating class / status and officers always provide full attention to every inspection and health measures on the conveyance).

Based on the results of the research, service users are satisfied with the service attributes, service users are given the opportunity to submit complaints of rudeness services and officers listen to patient complaints patiently and attentively with conformity level values of 104.17% and 101.73%, respectively. The value of the level of conformity of the results of this study is higher than the value of the level of conformity in the research conducted by Astuti (2021) with the value of the level of conformity regarding responses to suggestions and complaints of 89.95% (Ulandari & Yudawati 2019) of these six things, the service value is above the crew expectation value with a conformity level between 101.73 - 122.65% with an average value of the empathy dimension of 110.62%. This means that the crew is satisfied with all items in the empathy dimension (empathy).

The crew members are also satisfied with the quarantine service in the attribute of justice to get service (the officers provide services without differentiating the class / status of service users) with a suitability level value of 116.29%. As research conducted by Alwy (2018), that health workers do not differentiate between patients when taking action is an indicator of the dimension of empathy that provides service satisfaction to service users (Alwy, 2018).

Conclusion

The level of satisfaction of the crew on the quality of quarantine services during the COVID-19 pandemic at Belawan Port based on the Tangible service quality dimension of 109.39%, the Reliability dimension of 106.80%, the Responsiveness dimension of 106%, the Assurance dimension of 105.2% and Empathy dimensions of 110.62%. Based on the ServQual analysis, the results show that the satisfaction of the crew of the quarantine service at Belawan Port is very satisfying with a suitability level of 107.56% (the average service/reality score is 4.00 and the expectation score is 3.72). Service schedule certainty (implementation of service time is in accordance with the provisions), simple/straightforward service procedures, clear and easy service administration requirements, quality of evacuation equipment, dimensions of reliability, time to check health conditions on transportation means, response to evacuation Ship crews, Accuracy of checking people on conveyances, Accuracy of environmental sanitation measures on conveyances, Dimension of Assurance (Guarantee), Service users are given the opportunity to submit complaints of quarantine services, Officers hear patient complaints patiently and attentively.

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