
ANALYSIS OF DIMENSIONS OF SERVICE QUALITY AND SATISFACTION OF SEA PASSENGERS (Case Study at Nusantara Pura Passenger Terminal PT. Pelabuhan Indonesia II (Persero), Tanjung Priok Branch)

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Abstract

The objective of this study is to identify the effect of service quality dimensions on passenger satisfaction at Nusantara Pura Passenger Terminal PT. Pelabuhan Indonesia II (Persero) Tanjung Priok Branch. Passenger satisfaction is the dependent variable, while tangible, reliability, responsiveness, assurance, and empathy are independent variables.

This research uses a quantitative approach that is analyzed using Partial Least Square (PLS) with SmartPLS 3.0 software. The population of this study is all ship passengers using the services of the Passenger Terminal in 2018. The sample is determined based on the purposive sampling method, with consideration that the respondent has used at least 1 (one) time using Tanjung Priok Passenger Terminal Services. The number of samples given the questionnaire to be observed was 100 respondents. Hypothesis testing using the T Test.

The results of the study prove that tangibility and empathy have no effect on passenger satisfaction, while reliability, responsiveness, and assurance have a effect on passenger satisfaction.

Keywords: *Service quality dimensions, passenger satisfaction*

I. PRELIMINARY

Port is a place consisting of land and / or waters with certain boundaries as a place for government activities and business activities that are used as a place for ships to dock, board and / or unload goods, in the form of terminals and berths equipped with ships. safety and security facilities for shipping and port support activities as well as a place for intra-and intermodal transportations (Law of the Republic of Indonesia Number 17 of 2008, 2008).

PT. Pelabuhan Indonesia II (Persero) Tanjung Priok Branch is the largest and busiest port in Indonesia. Various services are provided by PT. Pelabuhan Indonesia II (Persero) Tanjung Priok Branch, including loading and unloading services, warehousing services, stacking field services, ship guidance services, ship mooring services, and passenger terminal services. And serve various types of cargo, such as container loading and unloading, liquid and solid bulk, vehicle loading and unloading, and passenger embarkation / debarkation.

As a means of transporting passengers, the number of users of sea transportation is not as many as the number of users of air or land transportation. However, there are still many prospective passengers who choose ships as their mode of transportation on the grounds that ticket prices are cheaper, they can carry more luggage than airplanes, and have extensive connectivity to all parts of Indonesia. The following is a recapitulation of the number of ship passengers at the Nusantara Pura Tanjung Priok Passenger Terminal:

Table 1. Total Number of Sea Ship Passengers at the Tanjung Priok Passenger Terminal in 2017



PT. (PERSERO) Pelabuhan Indonesia II
Cabang Tanjung Priok

**LAPORAN DEBARKASI / EMBARKASI PENUMPANG
DI TERMINAL PENUMPANG TANJUNG PRIOK
TAHUN 2017**

NO	BULAN	SHIP CALL		DEBARKASI			EMBARKASI			TOTAL DEBARKASI / EMBARKASI
		DN	LN	DN	LN	JUMLAH	DN	LN	JUMLAH	
1	JANUARI	42	0	7,163	0	7,163	5,281	0	5,281	12,444
2	FEBRUARI	43	1	6,393	1,359	7,752	6,303	1,372	7,675	15,427
3	MARET	41	0	6,386	0	6,386	4,601	0	4,601	10,987
4	APRIL	42	0	6,755	0	6,755	4,285	0	4,285	11,040
5	MEI	44	1	6,886	136	7,022	4,277	136	4,413	11,435
6	JUNI	53	0	12,819	0	12,819	16,777	0	16,777	29,596
7	JULI	47	0	23,362	0	23,362	16,649	0	16,649	40,011
8	AGUSTUS	52	0	9,764	0	9,764	11,237	0	11,237	21,001
9	SEPTEMBER	45	0	6,283	0	6,283	5,469	0	5,469	11,752
10	OKTOBER	42	1	5,432	151	5,583	4,686	151	4,837	10,420
11	NOVEMBER	38	1	4,780	344	5,124	5,285	375	5,660	10,784
12	DESEMBER	71	0	9,610	0	9,610	11,503	0	11,503	21,113
JUMLAH		560	4	105,633	1,990	107,623	96,353	2,034	98,387	206,010

Source: Operations Division of PT. Pelabuhan Indonesia II (Persero), Tanjung Priok Branch

Table 2.Total Number of Sea Ship Passengers at the Tanjung Priok Passenger Terminal in 2018



PT. PELABUHAN INDONESIA II CABANG TANJUNG PRIOK

**LAPORAN DEBARKASI / EMBARKASI PENUMPANG
DI TERMINAL PENUMPANG TANJUNG PRIOK
TAHUN 2018**

NO	BULAN	SHIP CALL		DEBARKASI			EMBARKASI			TOTAL DEBARKASI / EMBARKASI
		DN	LN	DN	LN	JUMLAH	DN	LN	JUMLAH	
1	JANUARI	53	1	6,418	1,370	7,788	4,730	1,370	6,100	13,888
2	FEBRUARI	66	2	4,613	2,055	6,668	4,097	2,055	6,152	12,820
3	MARET	54	1	4,538	318	4,856	3,919	318	4,237	9,093
4	APRIL	64	2	5,392	3,475	8,867	4,474	3,482	7,956	16,823
5	MEI	54	2	5,550	118	5,668	5,815	126	5,941	11,609
6	JUNI	98	0	22,681	0	22,681	22,586	0	22,586	45,267
7	JULI	56	0	12,963	0	12,963	14,596	0	14,596	27,559
8	AGUSTUS	61	0	8,323	0	8,323	7,828	0	7,828	16,151
9	SEPTEMBER	57	0	7,737	0	7,737	6,452	0	6,452	14,189
10	OKTOBER	65	1	6,100	134	6,234	5,513	134	5,647	11,881
11	NOVEMBER	54	1	6,906	930	7,836	6,973	0	6,973	14,809
12	DESEMBER	74	4	16,420	1,307	17,727	17,864	2,235	20,099	37,826
JUMLAH		756	14	107,641	9,707	117,348	104,847	9,720	114,567	231,915

Source: Operations Division of PT. Pelabuhan Indonesia II (Persero), Tanjung Priok Branch

Based on the table above, it can be seen that at present, even though the sea transportation mode is increasingly lagging behind the air and land transportation modes, there is still an increase in the number of passengers in 2018 compared to the previous year. So, using ships is still in demand by many potential passengers.

Management of PT. Pelabuhan Indonesia II (Persero) in achieving the company's vision to become a World Class Port by 2020, has carried out work programs that have previously been prepared in the form of a Corporate Roadmap. President Director of PT. Pelabuhan Indonesia II (Persero), Elvyn G. Masassya, on various occasions always emphasized the importance of improving service quality in order to achieve the agreed vision to become a world-class port manager that excels in operations and services. (Antara News, 2019).

Direction of the President Director of PT. Pelabuhan Indonesia II (Persero) followed up by the General Manager of PT. Pelabuhan Indonesia II (Persero), Tanjung Priok Branch by creating Prime Service Standards for Passenger Terminals. The implementation of Excellent Service Standards aims to improve service to service users in fulfilling needs in order to achieve customer satisfaction. In addition, PT. Pelabuhan Indonesia II (Persero), Tanjung Priok Branch also issued a Service Declaration, which states that it is capable of providing services with predetermined service standards. (Indonesia Shipping Line News, 2018).

This study was conducted to determine the magnitude of the influence of service quality dimensions consisting of tangible, reliability, responsiveness, assurance, and empathy on the satisfaction of marine passengers at Nusantara Pura Passenger Terminal PT. Pelabuhan Indonesia II (Persero), Tanjung Priok Branch.

II. LITERATURE REVIEW

2.1 Research Review

The first research was conducted by Indriastiwi (2017) in the Marine Transportation Research Journal (pISSN 1411-0504 / eISSN 2548-4087) with the title of the article "Identification of 24 Port Facilities in Indonesia Using Cluster Analysis and Analysis Hierarchy Process" which conducted research on 24 ports in Indonesia with the aim of identifying ports that have the best facilities. The variables assessed include channel length, channel depth, port pool area, maximum pool depth, pier length, pier depth, and warehouse area. From the research results, it was found that the Tanjung Priok Port has the highest weight.

The second research was conducted by Paisal & Afrizawati (2017) in the Sriwijaya Management and Business Journal Vol.15 (2) with the title of the article "The Effect of Service Quality of Fast Boat Passenger Terminal Services on Customer Satisfaction". In their research, Paizal and Afrizawati used an incidental sampling technique to survey 90 respondents at the Palembang Port Passenger Terminal to determine the quality of service at the port. The results of this study found that service quality has an influence on customer satisfaction at the Palembang Passenger Terminal.

The third research was conducted by Malisan (2017) in the Marine Transportation Research Journal (pISSN 1411-0504 / eISSN 2548-4087) with the article title "Analysis of Balikpapan Port Passenger Terminal Service Levels" conducted research by taking samples of 100 passengers at Balikpapan Passenger Terminal and processed using the Customer Satisfaction Index (CSI) to know the level of customer satisfaction at the port. From this research, it was found that the overall level of customer satisfaction at Balikpapan Passenger Terminal was still low, so it was necessary to improve sea transportation facilities at the port and improve the capabilities and skills of human resources on duty at the port.

The fourth research was conducted on the mode of air transportation by Marina, Darmawati, & Setiawan (2014) in the Journal of Transportation & Logistics Management (ISSN 2355-4721) with the title of the article "The Effect of Service Quality on Customer Loyalty at Full Service Airlines" involving 100 respondents who were taken randomly in their research. The study was conducted to determine whether the services provided make customers satisfied and cause customer loyalty. From the research results, it was found that all dimensions of service quality, namely tangible, reliability, responsiveness, assurance, and empathy, obtained satisfactory results in all dimensions of service quality. Thus, it is found that there is a strong relationship between service quality and customer satisfaction to create customer loyalty.

The fifth research was conducted by Rohaeni & Marwa (2018) in the Ecodemica Journal (ISSN: 2355-0295, e-ISSN: 2528-2255) with the title of the article "Service Quality to Customer Satisfaction" conducted a research using probability sampling method distributing questionnaires to 35,574 passengers of the Primajasa Bus. From this research, it was found that Primajasa Bus passengers stated that the services provided were good and the effect on customer satisfaction was quite large.

The sixth study, researchers took references from international research that examined the quality of services of Aegean Airline airlines. Performed by Tsafarakis, Kokotas, & Pantouvakis (2017) in the Journal of Air Transport Management (<https://doi.org/10.1016/j.jairtraman.2017.09.010> / ISSN: 0969-6997) with the title of the article "A Multiple Criteria Approach For Airline Passenger Satisfaction Measurement And Service Quality Improvement" interviewed 241 passengers and it was found that what made passengers dissatisfied was the airline ticket price. And the journal authors also conclude that it is very important to measure customer satisfaction because it contributes significantly to improving service quality.

The seventh research was conducted by Thai (2015) in the Journal of Maritime Economics and Logistics (DOI: 1157mel1519) with the title of the article "The Impact of Port Service Quality on Customer Satisfaction: The Case of Singapore" conducted research on all service users at the Port of Singapore to produce a result, namely the quality of port services has a significant effect. to customer satisfaction, in this case all service users at the Port of Singapore. From these results, Thai also conveyed that the dimension of service quality has the strongest influence on customer satisfaction at the Port of Singapore.

The eighth research was conducted by Bezerra & Gomes, (2015) in the Journal of Air Transport Management (<http://dx.doi.org/10.1016/j.jairtraman.2015.03.001> / ISSN: 0969-6997) with the article title "The Effects Of Service Quality Dimensions And Passenger Characteristics On Passenger's Overall Satisfaction With An Airport "took a sample of 1,568 Brazilian airport passengers. The study found that although there are many different characters in the entire sample of passengers, factors that provide satisfaction to passengers include check-in, security, atmosphere, facilities, and price.

2.2 Definition of Service Quality

Parasuraman (in Lupiyoadi, 2013: 216) said that "service quality is how far the difference between reality and customer expectations for the service they receive". Another definition of Wijaya (2011: 52) states "Service quality is a measure of how well the level of service provided is able to meet customer expectations."

Based on some of the above definitions, it can be concluded that service quality is everything the company provides to consumers so that the company can meet the needs and desires of consumers. In providing services, companies must be able to provide services in accordance with customer expectations and increase the excellence of the services provided.

2.3 Service Quality Dimensions

There are five main dimensions for assessing service quality (Tjiptono & Chandra, 2016: 137):

1. *Tangibles* (physical evidence), relating to the attractiveness of physical facilities, equipment, and materials used by the company, as well as the appearance of employees.
2. *Reliability* (reliability), relating to the company's ability to provide accurate service from the first time without making any mistakes and deliver its services according to the agreed time.
3. *Responsiveness* (responsiveness), regarding the willingness and ability of employees to help customers and respond to their requests, as well as informing when services will be provided and then providing services quickly.
4. *Assurance* (guarantee), namely the behavior of employees is able to foster customer trust in the company and the company can create a sense of security for its customers. Assurance also means that employees are always courteous and have the knowledge and skills needed to handle any customer question or problem.
5. *Empathy* (empathy), means that the company understands the problems of its customers and acts in the interests of customers, as well as giving personal attention to customers and having comfortable operating hours.

2.4 Service Quality Dimension Indicator

Indicators of customer satisfaction dimensions according to Parasuraman (in Paisal & Afrizawati, 2017):

1. *Tangibles* (physical evidence)
 - a. Physical facilities

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- Physical facilities, namely adequate waiting room capacity and the level of cleanliness of the terminal.
- b. Facilities and infrastructure
Facilities and infrastructure are clean and comfortable toilets, adequate lighting, and room temperature that makes passengers feel comfortable.
2. *Reliability* (reliability)
 - a. Punctuality
Timeliness is the accuracy of the information given regarding the ship arriving or departing.
 - b. The same service
Officers provide the same service without discriminating between passengers based on social status, ethnicity, race, or religion.
 3. *Responsiveness* (responsiveness)
Responsiveness (responsiveness) the indicator is fast and precise service. Fast and precise service is the handling of terminal officers in the check-in process and the process for passengers entering the terminal. And how do the officers know about the terminal facilities if there are passengers who need information.
 4. *Assurance* (guarantee)
 - a. Politeness
Manners are the officers' attitude towards passengers. And what is the attitude between officers when serving passengers.
 - b. Trust
Passenger's trust arises when security conditions in the terminal area are deemed safe, and readiness in case of an emergency. And, if the officers are honest and can be trusted by passengers.
 5. *Empathy* (empathy)
Empathy (empathy) the indicator is an understanding of specific service needs. The understanding of specific service needs is the attention of officers to passengers who seem to need help, and serving them with a friendly and wholeheartedly without expecting anything in return.

2.5 Understanding Customer Satisfaction

According to Kotler & Kevin Lane Keller (2013: 138), customer satisfaction is “A person's feeling of pleasure or disappointment that arises from comparing the product's perceived performance (or results) against their expectations. If performance fails to meet expectations, customers will be dissatisfied. If the performance is as expected, the customer will be satisfied. If performance exceeds expectations, customers will be very satisfied or happy. ”

According to Oliver (in Tjiptono, 2014: 354), customer satisfaction is stated "As a after-purchase evaluation, where the perception of the performance of the alternative product / service chosen meets or exceeds expectations before purchase. If perceptions of performance do not fulfill expectations, what will happen is dissatisfaction ”.

2.6 Customer Satisfaction Indicators

Hawkins and Lonney (in Tjiptono, 2014: 101) mentioning the indicators of customer satisfaction consist of:

1. Hope Match
The conformity of expectations is the level of conformity between service performance expected by consumers and perceived by consumers.
2. Returning Interest
Interest in returning to visit is the willingness of consumers to visit again or to reuse related services.
3. Willingness to Recommend
Willingness to recommend is the willingness of consumers to recommend services that have been felt to friends or family.

2.7 Ports, Terminals and Ships

Based on Regulation of the Minister of Transportation of the Republic of Indonesia Number PM 72 of 2017 concerning Types, Structures, Groups and Mechanisms for Setting Tariffs for Port Services:

1. Seaports
Sea port is a port that can be used to serve sea transportation activities and / or ferry transportation located at sea or in rivers.
2. Terminal
Terminal is a port facility consisting of a berth and a place for ships to dock or moor, a place for stacking up, a place for waiting and boarding passengers, and / or a place for loading and unloading goods.
That way, the Passenger Terminal is a port facility consisting of a berth and a berth for passengers to wait and get on / off the ship.
3. Ship
Ships are water vehicles of any shape and type, which are driven by mechanical power, wind power or towed, including vehicles with dynamic support, vehicles under the surface of the water, as well as floating devices and floating structures that do not move.

2.8 Relationship Between Research Variables

The relationship between variables in this study is the variable service quality dimension which consists of tangible, reliability, responsiveness, assurance, and empathy for customer satisfaction, in this case there are ship passengers at Nusantara Pura Passenger Terminal PT. Pelabuhan Indonesia II (Persero), Tanjung Priok Branch.

III. RESEARCH METHODS

The research strategy used in this study is an associative strategy. According to Sugiyono (2013: 11) "Associative strategy is a study that aims to determine the relationship between two or more variables". Based on this definition, in accordance with the formulation of the problem in research conducted by researchers, namely to determine the effect of Tangible (X1), Reliability (X2), Responsiveness (X3), Assurance (X4), and Empathy (X5) which are independent variables on satisfaction. consumer (Y) which is the dependent variable.

The population in this study were all ship passengers who use the passenger terminal services of PT. Pelabuhan Indonesia II (Persero), Tanjung Priok Branch in 2018. Based on Table 1.2. the total number of passengers is 231,915 passengers.

The samples in this study used suggestions from Rescoe (in Sugiyono, 2013: 90), namely the number of sample members at least 10 times the number of variables studied. Based on the suggestions from Rescoe, this study will use suggestions about the sample

size, but because the number of ship users at the research location is quite large, the researcher decided to increase the sample limit to 15 times the number of variables. The calculations are as follows:

$$n = (\text{Variabel } X + \text{Varibel } Y) \times 15$$

Information:

n : Number of variables

Variable X : Quality of service which consists of 5 dimensions

X1: Tangible

X2: Reliability

X3: Responsiveness

X4: Assurance

X5: Empathy

Variable Y : Customer satisfaction

So that:

$$n = (\text{Variabel } X + \text{Varibel } Y) \times 15$$

$$n = (5 + 1) \times 15$$

$$n = 90 \text{ respondents}$$

The sampling technique used in this study was purposive sampling method. According to Sugiyono (2013: 215), purposive sampling is a data source sampling technique with certain considerations. The consideration used in this research is that respondents use the service at least 1 (one) time Passenger Terminal PT. Pelabuhan Indonesia II (Persero), Tanjung Priok Branch.

Measurement of all variables in this study using a Likert scale. Answers to all indicators of questions given to respondents will be measured using scores. The scores given are:

Table 3. Likert scale

No.	Statement	Score
1	Strongly Agree (SS)	4
2	Agree (S)	3
3	Disagree (TS)	2
4	Strongly Disagree (STS)	1

Source: Sugiyono (2013: 92)

The data collected from the survey results will be grouped by variables and types of respondents and tabulated. Data processing is done by calculating using SmartPLS 3.0 software. and the data that has been collected will be presented in tables and figures.

Descriptive analysis is carried out by collecting, processing, presenting and interpreting data in order to obtain a clear picture of the problem at hand. Data analysis in this study used the Partial Least Square (PLS) approach. PLS is a component or variant based Structural Equation Modeling (SEM) equation model.

PLS-SEM analysis usually consists of two sub models, namely the measurement model or often called the outer model and the structural model or often called the inner model. The measurement model shows how the manifest or observed variable represents the latent variable to be measured. Meanwhile, the structural model shows the strength of estimation between latent and construct variables (Ghozali & Latan, 2015: 7).

The measurement model shows how the manifest or observed variable represents the latent variable to be measured (Ghozali & Latan, 2015: 7). The series of tests in the measurement model or outer model is a validity test and a reliability test.

The structural model or inner model shows the strength of the estimation between latent or construct variables (Ghozali & Latan, 2015: 7). The series of tests in the structural model or inner model is to calculate the R-Squares value and calculate the significance value to determine the effect between variables through the bootstrapping procedure.

IV. RESEARCH RESULTS AND DISCUSSION

4.1 Respondent Description

The object in this study is a passenger ship using the Nusantara Pura Passenger Terminal PT. Pelabuhan Indonesia II (Persero), Tanjung Priok Branch. Respondents who were given a questionnaire were those who had used the services of the Nusantara Pura Passenger Terminal PT at least once. Pelabuhan Indonesia II (Persero), Tanjung Priok Branch.

The questionnaires distributed were 100 questionnaires and 100 were returned, with the following characteristics:

Table 4. Profile of Respondents

Information	amount	Percentage
Number of Samples	100	100%
Gender:		
Men	61	61%
Woman	39	39%
Age:		
17-25 years	21	21%
26-30 years	21	21%
31 - 35 Years	19	19%
> 35 Years	39	39%
Education:		
SD / equivalent	12	12%
Junior High School / equivalent	13	13%
SMA / equivalent	50	50%
Bachelor	17	17%
Others	8	8%

Based on table 4, it is known that the number of male respondents is more than female respondents. Male respondents were 61 people (61%) and women as many as 39 people (39%). This is known because most men are more willing to travel by ship than women. And women who usually use ships are more comfortable when accompanied by their husbands, relatives, or male relatives. Most of the respondents were over 35 years old, as many as 39 people (39%), 21 people aged 17-25 years (21%), 21 people aged 26-30 years (21%), and respondents who were 19 people aged 31-35 years (19%). The number of passengers aged over 35 years is suspected because young passengers prefer the air transportation mode to travel because the travel time to their destination is shorter.

In addition, based on table 4, it is known that 50 respondents (50%) have a high school education (50%), 17 respondents (17%) have a Bachelor degree, 13 respondents (13%) have a junior high education (13%), Equivalent as many as 12 people (12%), and respondents with other education categories as many as 8 people (8%). The number of respondents with high school / equivalent education levels is thought to be due to income factors, because ship tickets are cheaper than airplanes, and most migrants who plan to settle in the capital need a larger baggage capacity to carry their belongings. For respondents with an education level of SD / equivalent, SMP / equivalent, and others (not attending school) are dominated by passengers who are quite old, so that in his day the willingness and opportunity to go to school was still low. And for respondents with a Bachelor's degree, most of these passengers have just graduated from college and are traveling with their families.

4.2 Measurement Model (Outer Model)

The measurement model or outer model shows how the manifest or observed variable represents the latent variable to be measured (Ghozali & Latan, 2015: 7). The series of tests in the measurement model or inner model is a validity test and a reliability test.

1. Validity Test

a. Loading Factor

The validity test with the SmartPLS 3.0 program can be seen from the loading factor value for each construct indicator. The requirement that is usually used to assess the validity is that the loading factor value must be more than 0.70. The loading factor value of processing results using SmartPLS software can be seen in table 5.

Table 5. Loading Factor

	Loading Factor	Information
X11	0.487	Invalid
X12	0.828	Valid
X13	0.902	Valid
X14	0.804	Valid
X15	0.868	Valid
X21	0.787	Valid
X22	0.928	Valid
X31	0.878	Valid
X32	0.939	Valid
X33	0.642	Invalid
X41	0.874	Valid
X42	0.867	Valid
X43	0.748	Valid
X44	0.825	Valid
X45	0.699	Invalid
X51	0.928	Valid
X52	0.916	Valid
Y1	0.907	Valid
Y2	0.874	Valid
Y3	0.867	Valid

Based on table 5, it is known that there are several instruments that have a value of <0.70 , so the X11, X33, and X45 instruments must be removed and then the calculations are carried out again. Reprocessing results show the following results:

Table 6. Loading Factor Step II

	Loading Factor	Explanation
X12	0.832	Valid
X13	0.910	Valid
X14	0.793	Valid
X15	0.871	Valid
X21	0.787	Valid
X22	0.928	Valid

X31	0.938	Valid
X32	0.942	Valid
X41	0.865	Valid
X42	0.898	Valid
X43	0.741	Valid
X44	0.840	Valid
X51	0.928	Valid
X52	0.916	Valid
Y1	0.907	Valid
Y2	0.874	Valid
Y3	0.866	Valid

The results of stage II calculations in table 6 show that all instruments are valid, which has a value ≥ 0.70 .

b. Discriminant Validity

Discriminant validity is done to ensure that each concept of each latent variable is different from other variables. The way to test discriminant validity with reflexive indicators is to see the cross loading value for each variable must be > 0.70 and the value is higher than other variables (Ghozali & Latan, 2015: 74). The results of discriminant validity testing were obtained as follows:

Table 7. Discriminant Validity

Discriminant Validity							
	Tangible	Reliability	Responsiveness	Assurance	Empathy	Customer Satisfaction	Keterangan
X12	0.832	0.376	0.512	0.479	0.448	0.424	Valid
X13	0.910	0.490	0.756	0.580	0.595	0.655	Valid
X14	0.793	0.395	0.670	0.526	0.506	0.451	Valid
X15	0.871	0.484	0.678	0.470	0.450	0.578	Valid
X21	0.396	0.787	0.361	0.345	0.180	0.379	Valid
X22	0.489	0.928	0.507	0.547	0.404	0.627	Valid
X31	0.752	0.503	0.938	0.497	0.600	0.634	Valid
X32	0.710	0.468	0.942	0.534	0.548	0.655	Valid
X41	0.476	0.408	0.409	0.865	0.611	0.555	Valid
X42	0.579	0.552	0.543	0.898	0.593	0.644	Valid
X43	0.366	0.344	0.296	0.741	0.297	0.450	Valid
X44	0.568	0.471	0.546	0.840	0.581	0.633	Valid
X51	0.512	0.338	0.551	0.615	0.928	0.582	Valid
X52	0.580	0.335	0.576	0.555	0.916	0.541	Valid
Y1	0.640	0.543	0.617	0.633	0.617	0.907	Valid
Y2	0.546	0.575	0.631	0.619	0.491	0.874	Valid
Y3	0.484	0.494	0.565	0.571	0.502	0.866	Valid

Based on the calculation results in table 7, all loading factor values of each latent variable have a value > 0.70 and the value is higher than other latent variables. That is, the results of the count discriminant validity are declared valid.

2. Reliability Test

a. Composite Reliability

Reliability test using composite reliability is used to prove the accuracy, consistency, and accuracy of the instrument in measuring constructs. The requirements that are usually used to assess construct reliability are composite reliability that must be greater than 0.7 for confirmatory research and values of 0.6 - 0.7 are still acceptable for exploratory research (Ghozali & Latan, 2015: 75). The results of the composite reliability test are obtained as follows:

Table 8. Composite Reliability

	Composite Reliability	Explanation
Tangible	0.914	Reliabel
Reliability	0.850	Reliabel
Responsiveness	0.938	Reliabel
Assurance	0.904	Reliabel
Empathy	0.919	Reliabel
Customer Satisfaction	0.914	Reliabel

Based on the results of the calculation of composite reliability in table 8, all variable values have a value of > 0.6 which means that all variables are declared reliable.

4.3 Structural Model (Inner Model)

The structural model or inner model shows the strength of the estimation between latent or construct variables (Ghozali & Latan, 2015: 7). The test series in the structural model or inner model is calculating the R-Squares value and calculating the significance value to determine the effect between variables through the bootstrapping procedure.

1. R-Squares (R²)

The R-Squares value can be used to explain the effect of certain exogenous latent variables on endogenous latent variables whether they have a substantial effect (Ghozali & Latan, 2015: 78). According to Chin (in Ghozali & Latan, 2015: 81) the R-Squares values of 0.67, 0.33, and 0.19 indicate a strong, moderate, and weak model.

Table 9. R-Squares Calculation Results

	R-Square
Customer Satisfaction	0.652

Based on the results of the calculation of R-Squares in table 9, the tangible variables, reliability, responsiveness, assurance, empathy that affect the customer satisfaction variable (passenger satisfaction) in the structural model have a R² value of 0.652 which indicates that the model is moderate.

2. Significance Test

The significance test of the SEM model with PLS aims to determine the effect of exogenous variables on endogenous variables. Hypothesis testing using the SEM PLS method is carried out by carrying out the bootstrapping process with the help of the SmartPLS 3.0 software. The significance value used is the t-value 1.96 (significance level 5%) (Ghozali & Latan, 2015: 81).

Table 10. Bootstrapping Calculation Results Step I

	T Statistik	Explanation
Tangible -> Customer Satisfaction	0.080	Tidak Signifikan
Reliability -> Customer Satisfaction	3.031	Signifikan
Responsiveness -> Customer Satisfaction	2.964	Signifikan
Assurance -> Customer Satisfaction	3.306	Signifikan
Empathy -> Customer Satisfaction	1.790	Tidak Signifikan

Based on the results of the bootstrapping in table 10., it is known that there are several variables that have a value <1.96 so that they must be removed and bootstrapped again. Rebootstrapping results show the following results:

Table 11. Bootstrapping Calculation Results Step II

	T Statistik	Explanation
Reliability -> Customer Satisfaction	2.766	Significant
Responsiveness -> Customer Satisfaction	5.107	Significant
Assurance -> Customer Satisfaction	4.768	Significant

Testing Hypothesis 1 (Tangible Against Passenger Satisfaction)

Based on the results of the calculation of the first stage of the bootstrapping, the result of the calculation of the T statistical value is 0.079. This value is smaller than the T Statistic requirement (> 1.96), which means that tangible (physical evidence) does not have a significant effect on passenger satisfaction. Thus, it was eliminated and bootstrapped again. This means that the hypothesis is rejected.

Testing Hypothesis 2 (Reliability Against Passenger Satisfaction)

Based on the results of the calculation of the bootstrapping phase II, the calculation result of the T statistic value is 2.766. This value is greater than the terms of T Statistics (> 1.96), which means that reliability has a significant effect on passenger satisfaction. This means that the hypothesis is accepted.

Testing Hypothesis 3 (Responsiveness To Passenger Satisfaction)

Based on the results of the calculation of the bootstrapping phase II, the calculation result of the T statistic value is 5.107. This value is greater than the requirements for T Statistics (> 1.96), which means that responsiveness has a significant effect on passenger satisfaction. This means that the hypothesis is accepted.

Testing Hypothesis 4 (Assurance Against Passenger Satisfaction)

Based on the results of the calculation of the bootstrapping phase II, the calculation result of the T statistic value is 4.768. This value is greater than the T statistic requirement (> 1.96), which means that assurance has a significant effect on passenger satisfaction. This means that the hypothesis is accepted.

Testing Hypothesis 5 (Empathy Against Passenger Satisfaction)

Based on the results of the calculation of the first stage of the bootstrapping, the calculation result of the T statistic value is 1.770. This value is smaller than the T statistic requirement (> 1.96), which means empathy (empathy) does not have a significant effect on passenger satisfaction. Thus, it was eliminated and bootstrapped again. This means that the hypothesis is rejected.

V. CONCLUSIONS AND SUGGESTIONS

5.1 Conclusions

Based on the results of the study which aims to analyze the effect of service quality dimensions on passenger satisfaction at Nusantara Pura Passenger Terminal PT. Pelabuhan Indonesia II (Persero), Tanjung Priok Branch, the following conclusions can be drawn:

1. The results of the first hypothesis test show that tangible (physical evidence) does not have a significant effect on passenger satisfaction at the Nusantara Pura Passenger Terminal PT. Pelabuhan Indonesia II (Persero), Tanjung Priok Branch. This means that if the tangible (physical evidence) increases, passenger satisfaction will not have a significant effect.
2. The results of the second hypothesis test show that reliability has a significant effect on passenger satisfaction at the Nusantara Pura Passenger Terminal PT.

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- Pelabuhan Indonesia II (Persero), Tanjung Priok Branch. That is, if the reliability (reliability) increases, then passenger satisfaction can increase.
3. The results of the third hypothesis test show that responsiveness has a significant effect on passenger satisfaction at Nusantara Pura Passenger Terminal PT. Pelabuhan Indonesia II (Persero), Tanjung Priok Branch. That is, if responsiveness (responsiveness) increases, then passenger satisfaction can increase.
 4. The results of the fourth hypothesis test show that assurance has a significant effect on passenger satisfaction at Nusantara Pura Passenger Terminal PT. Pelabuhan Indonesia II (Persero), Tanjung Priok Branch. This means that if the assurance (guarantee) increases, then passenger satisfaction can increase.
 5. The results of the fifth hypothesis test show that empathy (empathy) does not have a significant effect on passenger satisfaction at Nusantara Pura Passenger Terminal PT. Pelabuhan Indonesia II (Persero), Tanjung Priok Branch. This means that if empathy (empathy) increases, passenger satisfaction will not have a significant effect.

5.2 Suggestion

Based on the results and discussion, the following suggestions are given:

1. PT. Pelabuhan Indonesia II (Persero), Tanjung Priok Branch must increase reliability (reliability) to increase passenger satisfaction. Especially in providing services to passengers without discrimination or discrimination, considering that the passengers served have various characteristics.
2. Based on the results of this study it was found that responsiveness (responsiveness) has a significant effect on passenger satisfaction. Therefore, PT. Pelabuhan Indonesia II (Persero) Tanjung Priok Branch in increasing passenger satisfaction can be done through increased responsiveness, especially in creating an easy and comfortable terminal entry process because most passengers carry goods with large capacities.
3. It is necessary to improve the quality of cooperation between officers in providing services to passengers. This is based on the results of this study which show that assurance has a significant effect on passenger satisfaction. In the service system at the Passenger Terminal, there are many officers, among others, check-in officers, information officers, security officers, and terminal service officers. A professional attitude between officers can help passengers through all stages of entry from the terminal to the ship and out of the ship smoothly and comfortably so that passenger satisfaction can be increased.

BIBLIOGRAPHY

- Antara News. (2019). Dirut IPC Elvyn G. Masassya, padukan konsep profesionalisme dan seni musik. Retrieved October 2, 2019, from <https://www.antaraneews.com/berita/810242/dirut-ipc-elvyn-g-masassya-padukan-konsep-profesionalisme-dan-seni-musik>
- Bezerra, G. C. L., & Gomes, C. F. (2015). Journal of Air Transport Management The effects of service quality dimensions and passenger characteristics on passenger ' s overall satisfaction with an airport. *Journal of Air Transport Management*, 44–45, 77–81. <https://doi.org/10.1016/j.jairtraman.2015.03.001>
- Ghozali, I., & Latan, H. (2015). PARTIAL LEAST SQUARE: KONSEP, TEKNIK DAN APLIKASI Menggunakan Program SmartPLS 3.0 Untuk Penelitian Empiris Edisi 2. Semarang: Badan Penerbit Universitas Diponegoro Semarang.
- Indonesia Shipping Line News. (2018). IPC CABANG TANJUNG PRIOK SOSIALISASI STANDAR PELAYANAN PRIMA TERMINAL PENUMPANG DAN PETIKEMAS. Retrieved October 2, 2019, from <https://www.indonesiashippingline.com/port/3162-ipc-cabang-priok.html>
- Indriastiwi, F. (2017). Identifikasi Fasilitas 24 Pelabuhan di Indonesia Menggunakan Analisis Cluster dan Analysis Hierarchy Process. *Jurnal Penelitian Transportasi Laut*, 19, 25–39.
- Kotler, P., & Kevin Lane Keller. (2013). *Manajemen Pemasaran Edisi Kedua Belas Jilid 1*. Jakarta: Penerbit Erlangga.
- Lupiyoadi, R. (2013). *Manajemen Pemasaran Jasa (Praktik dan Teori)*. Jakarta: PT Salemba Empat.
- Malisan, J. (2017). Analisis Tingkat Pelayanan Terminal Penumpang Balikpapan. *Jurnal Penelitian Transportasi Laut*, 19, 76–87.
- Marina, S., Darmawati, A., & Setiawan, I. (2014). Pengaruh Kualitas Pelayanan terhadap Loyalitas Pelanggan pada Perusahaan Penerbangan Full Service Airlines. *Jurnal Manajemen Transportasi & Logistik*, 01(02), 157–164.
- Paisal, & Afrizawati. (2017). Pengaruh Kualitas Layanan Jasa Terminal Penumpang Kapal Cepat Terhadap Kepuasan Konsumen. *Jurnal Manajemen Dan Bisnis Sriwijaya*, 15(2).
- Peraturan Menteri Perhubungan Republik Indonesia Nomor PM 72 Tahun 2017 Tentang Jenis, Struktur, Golongan Dan Mekanisme Penetapan Tarif Jasa Kepelabuhanan (2017).
- Rohaeni, H., & Marwa, N. (2018). Kualitas Pelayanan Terhadap Kepuasan Pelanggan. *Jurnal Ecodemica*, 2(2), 312–318.
- Sugiyono. (2013). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- Thai, V. V. (2015). The Impact of Port Service Quality on Customer Satisfaction : The Case of The Impact of Port Service Quality on Customer Satisfaction : The Case of Singapore. *Maritime Economics And Logistics*, (June). <https://doi.org/10.1057/mel.2015.19>
- Tjiptono, F. (2014). *Pemasaran Jasa: Prinsip, Penerapan, Penelitian*. Yogyakarta: Andi Offset.
- Tjiptono, F., & Chandra, G. (2016). *Service, Quality & Satisfaction Edisi Empat*. Yogyakarta: Andi Offset.
- Tsafarakis, S., Kokotas, T., & Pantouvakis, A. (2017). A multiple criteria

approach for airline passenger satisfaction measurement and service quality improvement. *Journal of Air Transport Management*, 1–15.
<https://doi.org/10.1016/j.jairtraman.2017.09.010>

Undang-Undang Republik Indonesia Nomor 17 Tahun 2008 Tentang Pelayaran (2008).

Wijaya, T. (2011). *Manajemen Kualitas Jasa* (Edisi 1). Jakarta: PT Indeks.