The Influence of Service Quality, Relationship Quality on Port Performance Which has Implications For Customer Satisfaction at The Port Tg. Priok Jakarta Indonesia

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Abstract: This study aims to examine and analyze the effect The Influence of Service Quality, Relationship Quality On Port Performance Which Has Implications For Customer Satisfaction At The Port Tg. Priok Jakarta Indonesia. The influence of the organization on the performance of Jakarta's Port tgpriok was studied with regard to its organic employees, either partially or indirectly. A sample of 70 people was selected from a population of 100 people using the Slovin formula. This research employs a survey method with descriptive and associative explanation techniques. Data was collected using both descriptive and inferential statistics through Structural Equation Modeling (SEM- SMART PLS). The model consists of sub-structures including Service Quality and Relationship Quality as exogenous variables, Port Performance as an intervening variable, and Customer Satisfaction as the endogenous variable. The primary components of the model consist of two indirect structures: the first examines the effect of Service Quality and Relationship Quality on Port Performance, while the second considers the direct effect of Service Quality and Relationship Quality on Customer Satisfaction. The R Square test on the inner model is one way to measure how much an endogenous variable can be explained by the related exogenous variables. In the following explanation, we will explain in more detail about the R Square concept in the inner model and how its use can help to understand the interrelationships between variables in a model. Following are the results of the regression analysis in this research model: The results showed that there was a positive and significant effect R Square R Square Adjusted Customer Satisfaction 0.493 - 0.471 Port Performance 0.251 - 0.230. The following are the results of the R Square and R Square Adjusted tests on two endogenous variables in a model, namely Customer Satisfaction and Port Performance. Customer Satisfaction has an R Square of 0.493, which means that around 49.3% of the variation in Cust Satisfaction can be explained by exogenous variables associated with these variables. Meanwhile, the R Square Adjusted is 0.471, which indicates that around 47.1% of the variation in customer satisfaction can be explained by exogenous variables in the model, after taking into account the complexity of the model. Port Performance has an R Square of 0.251, which means that about 25.1% of Port Performance variations can be explained by exogenous variables associated with these variables. Meanwhile, the R Square Adjusted is 0.230, which indicates that around 23.0% of
the variation in Port Performance can be explained by exogenous variables in the model, after taking into account the complexity of the model.

**Keyword:** Service quality, Relationship quality, Port performance, Customer satisfaction

**INTRODUCTION**

Sea transportation is the backbone of world trade and encourages globalization. Based on a study by Arianto Paturu et.al (2007), eighty-five percent (85%) of world trade is by sea, while 90% of trade distribution in Indonesia is also by sea (Ayiful Ramadhan Asit, 2010). This causes the port to become an important node in the flow of trade and distribution of goods in Indonesia and the world. As the largest archipelago in the world, Indonesia needs a well-developed and efficiently managed port sector because poor port services will have a major impact on trade activities and distribution of goods in Indonesia. Based on a study from LPEM-FEUI in 2007 (Arianto Patunru et.al), the reasons for poor port services are congestion of goods movement, limited infrastructure, limited cranes, administration, and cargo manifests. Related to the congestion of goods movement, it does not only occur inside the port but also outside the port such as access to the port which results in choked delivery of goods and results in ships having to wait longer.

There are several factors related to port management issues, namely port facilities, regulations and human resources (Ayiful Ramadhan Asit, 2010). Related to port facilities, especially port infrastructure in Indonesia ranks 103 out of 142 countries, still lagging behind Singapore, Malaysia and Thailand with each ranking 1, ranking 14 and ranking 47 (World Economic Forum, Global Competitiveness Report, 2012). Other issues are also related to Container Handling Charge (CHC) and Terminal Handling Charge. The amount of Container Handling Charge (CHC) and Terminal Handling Charge (THC) has been perceived as very high by the business community, especially domestic exporters and importers, thus affecting the competitiveness of Indonesian export products abroad (Kompas, November 27, 2008).

A comparison of the amount of CHC and THC and port productivity with several ASEAN countries is presented in Table 1.1.

| Table 1. Comparison of CHC and THC magnitude and productivity of some Ports in Asia |
|-----------------|----------|----------|------------------|
| **Asien Port**  | **CHC (US$)** | **THC (US$)** | **Productivity** |
| Bangkok / Thailand | 19.53 | 33.21 | 68.48 | 71.25 | 20-20 |
| Laks Chalung / Thailand | 26.08 | 49.78 | 62.48 | 71.25 | 25-30 |
| Tanjong Pekau / Malaysia | 30.33 | 75.33 | 79.18 | 139.40 | 29-29 |
| Port Klang / Malaysia | 63.01 | 91.51 | 88.96 | 137.25 | 20-20 |
| Singapore | 88.58 | 129.69 | 107.2 | 139.41 | 20-30 |
| Tanjong point / Indonesia | 15 | 130 | 150 | 200 | 10-20 |

(Source : Departemen Perhubungan, 2009)
Finding: in 2019 Dwelling time reach 3.7 day

<table>
<thead>
<tr>
<th>Terminal Container</th>
<th>Year</th>
<th>Shipping Service</th>
<th>Goods Service</th>
<th>Facility and Equipment Utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ET BT (%)</td>
<td>B/C/H (Box)</td>
<td>B/S/H (Box)</td>
</tr>
<tr>
<td>JICT</td>
<td>2019</td>
<td>88.48</td>
<td>26.43</td>
<td>68.33</td>
</tr>
<tr>
<td></td>
<td>2020</td>
<td>89.18</td>
<td>28.58</td>
<td>69.36</td>
</tr>
<tr>
<td></td>
<td>2021</td>
<td>90.42</td>
<td>25.75</td>
<td>57.91</td>
</tr>
<tr>
<td>KOJA</td>
<td>2019</td>
<td>60.87</td>
<td>26.76</td>
<td>67.58</td>
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<tr>
<td></td>
<td>2020</td>
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<td>26.16</td>
<td>63.26</td>
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<td></td>
<td>2021</td>
<td>90</td>
<td>26</td>
<td>66.19</td>
</tr>
<tr>
<td>MAL</td>
<td>2019</td>
<td>70.57</td>
<td>23.54</td>
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<tr>
<td></td>
<td>2020</td>
<td>76.41</td>
<td>24.88</td>
<td>65.38</td>
</tr>
<tr>
<td></td>
<td>2021</td>
<td>78.4</td>
<td>23.4</td>
<td>59.7</td>
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<tr>
<td>NPCT1</td>
<td>2019</td>
<td>60</td>
<td>31.9</td>
<td>96.62</td>
</tr>
<tr>
<td></td>
<td>2020</td>
<td>84.7</td>
<td>30.58</td>
<td>86.33</td>
</tr>
<tr>
<td></td>
<td>2021</td>
<td>86.1</td>
<td>28.88</td>
<td>59.27</td>
</tr>
<tr>
<td>IPC TPK 1</td>
<td>2019</td>
<td>63.15</td>
<td>18.35</td>
<td>26.53</td>
</tr>
<tr>
<td></td>
<td>2020</td>
<td>65.94</td>
<td>18.98</td>
<td>26.12</td>
</tr>
<tr>
<td></td>
<td>2021</td>
<td>66.78</td>
<td>20.99</td>
<td>32.07</td>
</tr>
<tr>
<td>IPC TPK 2</td>
<td>2019</td>
<td>67.41</td>
<td>21.83</td>
<td>51.56</td>
</tr>
<tr>
<td></td>
<td>2020</td>
<td>68.75</td>
<td>22.11</td>
<td>52.71</td>
</tr>
<tr>
<td></td>
<td>2021</td>
<td>65.08</td>
<td>22.14</td>
<td>64.66</td>
</tr>
</tbody>
</table>

In 2021 Finding that terminal Container consist :: JICT, KOJA, MAL, NPCT1, IPC TPK 1, IPC TPK 2, IKT TG.PRIOKPORT 1. Prosentase Utilisasi Fasilitas BOR(%) dan YOR (%) at 55% below target which not according target with Standard Regulation Main Port Tanjung Priok.

LITERATURE REVIEW:
Dimensions of Service Quality

The definition of the dimensions of service quality as studied by Parasuraman, Zeithaml & Berry (1988) is as follows:

1. Reliability

   Namely the ability to provide the promised service accurately and dependably, especially providing services on time, in the same way according to the promised schedule and without making mistakes every time. The attributes that are in this dimension include:
   a. Provide services as promised
   b. Accountability for consumer handling of service issues
   c. Provide good service during the first impression to consumers
d. Provide services on time
   e. Provide information to consumers about when the promised service will be realized

2. Responsiveness
   That is the willingness or desire of employees to help and provide the services needed by consumers. Leaving customers waiting, especially for no apparent reason, will create a negative impression that should not happen. Unless this mistake is responded to quickly, it can be a memorable and enjoyable experience.

**Relationship Quality (X2)**

Relationship quality is a determining factor in the concept of relationship marketing. To see the extent to which relationship marketing implemented by the company is successful, there are several dimensions of relationship quality that must be considered by the company. From several studies found that relationship marketing can be shown from the quality of the relationship between sellers and buyers to build and maintain long-term relationships (Dwyer et al., in Kumar et al. 1994). As stated Henning dalam Thorstenet al. (1999) “relationship quality can be regarded as a metaconstruct composed of several key component reflecting the overall nature oh the relationship between companies and consumer”.

**Port Performance (Y)**:

According to Lasse (2016:188), port performance indicators are a set of parameters and measures that are utilized to attain set targets. These indicators are categorized into four groups, which are Service, Output, Utility, and Cost per ton of goods handled. The service dimension is mainly concerned with the duration of the ship's stay at the port. The output dimension, on the other hand, is the ratio of output to input (production) within a specific period. Productivity is then defined as the ratio of output to input in terms of quality and quantity of work performed. The utility dimension measures the effectiveness of the dock and supporting facilities. Lastly, the dimension of cost per ton of goods handled refers to the cost of transporting goods from the shipper. Port service performance is an evaluation of all the services provided by the port, and it is The port's reliability and excellence are evaluated based on the perception of its customers.

Customer satisfaction can be impacted, as outlined in Suryani's 2019 study. The indicators employed in this research are based on Prakasa Eko Wibowo's 2015 research. In the context of port facility expansion planning forecasts, productivity is defined as "the total Ton/Gang/Hour or the number of tons each gang, crane, ship unloader, pump, etc., handled while working for one hour without interruption" (UNCTAD, 1978:48). This definition indicates that the number of tons of goods served is reliant on the power of the gang, including the mechanical/non-mechanical equipment utilized, and the length of effective working time without stopping operations, called Idle Time. Loading and unloading productivity is measured by the number of tons of goods unloaded/loaded during one working hour by each gang (group) of workers. The indicators cited in this study are based on Frilia Eti Angraineri's 2015 research.

**Customer Satisfaction (Z):**

Kotler (1997: 38) identifies 4 (four) methods for measuring customer satisfaction, which are as follows:

1. Complaints and Suggestion System
   To identify problems, the company must collect information directly from consumers by providing a suggestion box. The information collected is to provide input for the company.

2. Customer Satisfaction Survey
   Customer satisfaction surveys can be conducted by mail, telephone, or personal interviews so that the company can create 2-way communication and show its
attention to consumers.

3. Ghost Shopping
   This method is used to find out the strengths and weaknesses of competing companies and compare them with the company concerned.

4. Customer Loss Analysis
   The level of customer loss indicates the company's failure to satisfy its customers. Companies should analyze and understand why these consumers stop consuming our products.

METHODS

Description:
X1 and X2 = Affecting Variable, Y = Affected Variable Or, Description: X1, X2, = Influencing Variable, Z = Affected Variable Description:
X1, X2 = Influencing Variable, Y = Mediating Variable, Z = influenced variable

Research Hypothesis
The research hypothesis is a temporary answer to the formulation of research problems. It is said to be temporary because the answers given are only based on theory and have not used facts. The formulation of problems in the form of general questions in Chapter I, based on the study of the theoretical review, is elaborated / developed into a research hypothesis.

The research hypothesis
1. H1: There is an Effect of Service Quality on Port Performance at the Port of Tg. Priok.
2. H2 : There is an influence of Relationship Quality on Port Performance at the Port of Tg.Priok Port.
3. H3 : There is an influence of Service Quality, Product Quality together on Port Performance at the Port of Tg.Priok Port.
4. H4 : There is an influence of Service Quality has implication to Customer Satifaction at the Port of Tg. Priok Port.
5. H5 : There is an influence of Relationship Quality has implication to Customer Satisfaction at the Port of Tg. Priok Port.
6. H6 : There is an influence of Port Performance has implication to Customer Satisfaction at the Port Authority of Tg. Priok.
7. H7 : There is an influence of Service Quality, Relationship Quality, Port Performance together has implication to Customer Satisfaction at the Port of Tg.Priok Port.

Population and Engineering Collection Sample
For the present study, the target population/sample consists of the 90 permanent organic employees of PT. PELINDO, JICT, KOJA in Jakarta who have worked for a minimum of 5 years and are still actively employed in the office.

RESULT AND DISCUSSION
Research Samples
According to Hair Jr et al.’s study in 2017, it is necessary to have at least five
observations for each estimate of an indicator. To determine the minimum number of samples required, one can use this formula: Number of indicators multiplied by 5 observations. Additionally, Hair Jr et al. suggest that using a sample range of 1 to 90 individuals is ideal for Structural Equation Modeling analysis. For the current study, the proportional sampling technique was utilized, and Table 1 displays the proportional distribution of the study samples.

Table 1. Sample Distribution of the Proportions of Organic Employees of PT. Pelindo, JICT, KOJA

<table>
<thead>
<tr>
<th>Port of Tg.Priok</th>
<th>Population</th>
<th>Research Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>JICT</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>KOJA</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>PELINDO</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

Source: Population Officer PORT TG.PRIOK, Data Processed

Test Research Instruments
1. Validity Test
To ensure the accuracy of the gathered data, the current study subjected it to a test of construct validity. This was accomplished by correlating each item in the questionnaires with a total score, which was calculated by summing all of the item scores. The correlation between each item and the total score had to be significantly higher than the r-statistic in order to validate the construct. When all items related to the concept were correlated with the total score, it indicated that the measure was more valid. The validity of the constructs was supported by the tables presented in this study: Table 2, Table 3, Table 4, and Table 5. The Pearson Product-Moment correlation formula (Sugiyono, 2019) was utilized in this study to establish these correlations:

\[
R_{xi} = \frac{n \sum_{i=1}^{n} x_i y_i - \sum_{i=1}^{n} x_i \sum_{i=1}^{n} y_i}{\sqrt{n \sum_{i=1}^{n} x_i^2 - \left(\sum_{i=1}^{n} x_i\right)^2} \sqrt{n \sum_{i=1}^{n} y_i^2 - \left(\sum_{i=1}^{n} y_i\right)^2}}
\]

Information:
R_{xi} = coefficient of Pearson of each instrument that will be used with variable concerned.
Xi = score of the instrument item to be used.
Yi = score of all instrument items in the variable.
N = number of responses in the instrument trial

Construct validity and reliability tests were carried out with 4 criteria such as the data below:

Table 6. Construct Validity and Reliability Test result

<table>
<thead>
<tr>
<th></th>
<th>Cronbach's Alpha</th>
<th>rho_A</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cust Satisfaction</td>
<td>0.791</td>
<td>0.901</td>
<td>0.834</td>
<td>0.513</td>
</tr>
<tr>
<td>Port Performance</td>
<td>0.908</td>
<td>0.934</td>
<td>0.933</td>
<td>0.738</td>
</tr>
<tr>
<td>Relationship Quality</td>
<td>0.957</td>
<td>0.971</td>
<td>0.959</td>
<td>0.635</td>
</tr>
<tr>
<td>Service Quality</td>
<td>0.972</td>
<td>0.983</td>
<td>0.971</td>
<td>0.563</td>
</tr>
</tbody>
</table>
In the table given, there are four constructs (Custom Satisfaction, Port Performance, Relationship Quality, and Service Quality) and each construct is tested for validity and reliability.

Cust Satisfaction: The Cronbach's Alpha value obtained is 0.791 indicating that this construct has a fairly good level of reliability, because a value greater than 0.7 is considered acceptable in the study. The rho_A value obtained of 0.901 also indicates that this construct has high reliability. The Composite Reliability (CR) value obtained was 0.834 indicating that this construct also has fairly good reliability. The Average Variance Extracted (AVE) value of 0.513 indicates that this construct has a sufficient level of validity, because an AVE value greater than 0.5 is considered acceptable in the study.

Port Performance: The Cronbach's Alpha value obtained is 0.908 indicating that this construct has a fairly good level of reliability. The rho_A value obtained is 0.934 indicating that this construct has high reliability. The CR value obtained was 0.933 indicating that this construct also has very good reliability. The AVE value of 0.738 indicates that this construct has a high level of validity.

Relationship Quality: The Cronbach's Alpha value obtained is 0.957 indicating that this construct has a very good level of reliability. The rho_A value obtained is 0.971 indicating that this construct has very high reliability. The CR value obtained was 0.959 indicating that this construct also has very good reliability. The AVE value of 0.635 indicates that this construct has a high level of validity.

Service Quality: The Cronbach's Alpha value obtained is 0.972 indicating that this construct has a very good level of reliability. The rho_A value obtained is 0.983 indicating that this construct has very high reliability. The CR value obtained is 0.971 indicating that this construct also has very good reliability. The AVE value of 0.563 indicates that this construct has a sufficient level of validity.

Overall, the results of the validity and reliability tests indicate that the constructs in this study are reliable and valid in measuring the desired variable. The Cronbach's Alpha, rho_A, and Composite Reliability values indicate a fair or very good level of reliability for each construct. While the AVE value shows a sufficient or high level of validity for each construct, except for Service Quality which only has a sufficient level of validity.

2. Research Hypothesis Test
Inner Model

1. R Square

The R Square test on the inner model is one way to measure how much an endogenous variable can be explained by the related exogenous variables. In the following explanation, we will explain in more detail the R Square concept in the inner model and how its use can help to understand the interrelationships between variables in a model. Following are the results of the regression analysis in this research model:

<table>
<thead>
<tr>
<th>Variable</th>
<th>R Square</th>
<th>R Square Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cust Satisfaction</td>
<td>0.493</td>
<td>0.471</td>
</tr>
<tr>
<td>Port Performance</td>
<td>0.251</td>
<td>0.230</td>
</tr>
</tbody>
</table>

The following are the results of the R Square and R Square Adjusted tests on two endogenous variables in a model, namely Customer Satisfaction and Port Performance.

Customer Satisfaction has an R Square of 0.493, which means that around 49.3% of the variation in Cust Satisfaction can be explained by exogenous variables associated with these variables. Meanwhile, the R Square Adjusted is 0.471, which indicates that around 47.1% of the variation in customer satisfaction can be explained by exogenous variables in the model, after taking into account the complexity of the model.

Port Performance has an R Square of 0.251, which means that about 25.1% of Port Performance variations can be explained by exogenous variables associated with these variables. Meanwhile, the R Square Adjusted is 0.230, which indicates that around 23.0% of the variation in Port Performance can be explained by exogenous variables in the model, after taking into account the complexity of the model.

The two values of R Square and R Square Adjusted are important to note because they can help us understand how much influence exogenous variables have on endogenous variables in a model. The higher the R Square value, the greater the influence of exogenous variables on endogenous variables. However, we also need to pay attention to the R Square Adjusted value which takes into account the complexity of the model, so that it can provide a more accurate picture of how much influence the exogenous variables have on the endogenous variables.

2. Path Analysis and Hypothesis Testing

The process of hypothesis testing is conducted by examining the outcomes of the Inner Model, which is also referred to as the structural model. The Inner Model embodies the R-square output, parameter coefficients, and t-statistics. To confirm or disprove a hypothesis, the significance value between constructs, t-statistics, and p-values can be utilized, among other methods. In this particular study, the hypothesis testing was executed with the assistance of Smart-PLS (Partial Least Square) 3.0 software. The bootstrapping calculation results provide insight into these values.
The bootstrapping results show that there is a positive significance between port performance (Port Performance) and customer satisfaction (Cust Satisfaction) with a T-statistic value of 3.064 and a P-value of 0.002. That is, the higher the port performance, the higher the customer satisfaction.

Furthermore, the bootstrapping results show a positive significance between relationship quality and customer satisfaction with a T-statistic value of 2.918 and a P-value of 0.004. This shows that the better the quality of the relationship with the customer, the higher the customer satisfaction.

However, there is no significance between relationship quality and port performance with a T-statistic value of 1.731 and a P-value of 0.084. That is, it cannot be concluded that the quality of the relationship has a significant effect on port performance.

The bootstrapping results also show that there is no significance between service quality (Service Quality_) and customer satisfaction (Cust Satisfaction) with a T-statistic value of 1.363 and a P-value of 0.174. That is, service quality has no significant effect on customer satisfaction.

Finally, the bootstrapping results show a positive significance between service quality (Service Quality) and port performance (Port Performance) with a T-statistic value of 2.817 and a P-value of 0.005. That is, the better the service quality, the higher the port performance. To support the results of the analysis, the following are the results of testing the indirect effect of the following this analysis:

**Table 7. Direct Effect**

|                        | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values |
|------------------------|---------------------|-----------------|-----------------------------|----------------------|----------|
| Port Performance -> Cust Satisfaction | 0.360               | 0.347           | 0.117                       | 3.064                | 0.002    |
| Relationship Quality -> Cust Satisfaction | 0.892               | 0.973           | 0.306                       | 2.918                | 0.004    |
| Relationship Quality -> Port Performance | -0.491              | -0.493          | 0.284                       | 1.731                | 0.084    |
| Service Quality_ -> Cust Satisfaction | -0.427              | -0.489          | 0.313                       | 1.363                | 0.174    |
| Service Quality_ -> Port Performance | 0.930               | 0.939           | 0.330                       | 2.817                | 0.005    |

**Table 8. Indirect Effect**

<table>
<thead>
<tr>
<th></th>
<th>Original Sample</th>
<th>Standard</th>
<th>T</th>
</tr>
</thead>
</table>

483 | Page
### Table

| Relationship Quality - > Port Performance - > Cust Satisfaction | Sample (O) | Mean (M) | Deviation (STDEV) | Statistic (|O/STDEV|) | P Values |
|---------------------------------------------------------------|------------|----------|-------------------|-----------------|----------|
| Service Quality_ - > Port Performance - > Cust Satisfaction | -0.177     | -0.187   | 0.124             | 1.429           | 0.154    |
| Cust Satisfaction                                             | 0.335      | 0.347    | 0.184             | 1.818           | 0.070    |

The data is the result of bootstrapping from testing the indirect effect of the Port Performance and Service Quality_ variables on Customer Satisfaction through a Relationship Quality mediator.

For the indirect effect of Relationship Quality - > Port Performance - > Customer Satisfaction, the Original Sample value is -0.177. From the bootstrapping results it can also be seen that the Sample Mean value is -0.187 and the Standard Deviation is 0.124. Then, also calculated the T Statistics value of 1.429 and P Values of 0.154. From these results, it can be concluded that there is no significant indirect effect from Relationship Quality - > Port Performance - > Customer Satisfaction.

Meanwhile, for the indirect effect of Service Quality_ - > Port Performance - > Customer Satisfaction, the Original Sample value was 0.335. From the bootstrapping results it can also be seen that the Sample Mean value is 0.347 and the Standard Deviation is 0.184. Then, also calculated the T Statistics value of 1.818 and P Values of 0.070. From these results, it can be concluded that there is an indirect effect that is not significant from Service Quality_ - > Port Performance - > Customer Satisfaction.

The following is a conclusion from the results of hypothesis testing on the data provided: H0 : There is no significant effect between Port Performance and Customer Satisfaction. Upon conducting the T-Statistics test, it was discovered that the value obtained was 3.064, and the P-Value was 0.002. As a result, H0 was rejected, indicating that there is an evident correlation between Port Performance and Customer Satisfaction.

The null hypothesis suggests that there is no considerable impact between the quality of the relationship and the satisfaction of the customer. Upon conducting the T-Statistics test, it was revealed that there is a value of 2.918, and a P-Value of 0.004. This leads to the rejection of H0, indicating that there is a substantial correlation between Customer Satisfaction and the degree of Customer Satisfaction.

The hypothesis, H0, proposes that there is no notable correlation between Relationship Quality and Port Performance. Upon conducting the T-Statistics test, the outcome revealed a value of 1.731, while the P-Value was found to be 0.084. Therefore, the null hypothesis, H0, is accepted, signifying that there is no considerable correlation between Relationship Quality and Port Performance.

The hypothesis being tested is that there is no noteworthy relationship between Service Quality and Customer Satisfaction. Based on the T-Statistics test, the value obtained was 1.363, and the P-Value was 0.174. As a result, H0 is accepted, indicating that there is no noteworthy correlation between Customer Satisfaction and Service Quality.

The hypothesis H0 posits that there is no noteworthy correlation between Port Performance and Service Quality. According to the T-Statistics test, the value is 2.817 and the P-Value is 0.005. As a result, H0 is rejected, indicating a substantial correlation between Service Quality and Port Performance.

### 3. Result And Discussion

After conducting the Smart PLS analysis test, the results suggest a strong correlation between the variables of Port Performance and Customer Satisfaction, as evidenced by the T-Statistics value of 3.064 and P-Value of 0.002. Similarly, the variable of Relationship...
Quality also displays a significant relationship with Customer Satisfaction, with a T-Statistic value of 2.918 and P-Value of 0.004. However, the analysis did not establish a significant relationship between the Port Performance and Relationship Quality variables, with a T-Statistic value of 1.731 and P-Values of 0.084. Lastly, the variable of Service Quality did not demonstrate a significant relationship with Customer Satisfaction, as indicated by a T-Statistic value of 1.363 and P-Values of 0.174. Nonetheless, it did display a significant relationship with Port Performance, with a T-Statistic value of 2.817 and P-Values of 0.005.

The implications of the Smart PLS analysis test findings are significant for the industry. Enhancing service quality and customer relations can lead to better port performance for businesses. This, in turn, can generate higher customer satisfaction, which can also have a favorable effect on port performance. Nevertheless, it is important for companies to acknowledge that other factors, including product quality and price, can also influence customer satisfaction and should be taken into consideration.

The Smart PLS analysis test results provide theoretical backing to the notion that service quality and customer relations are interconnected. Having a positive impact on customer satisfaction is undoubtedly important. However, it is not always guaranteed that every variable will have a considerable effect on a company's performance. Therefore, it is crucial to give special attention to each variable and conduct a careful analysis to obtain accurate and dependable results.

According to the Smart PLS analysis test, the correlation between customer satisfaction and port performance (port performance -> customer satisfaction) is positively significant, with a path coefficient of 0.360 and a p-value of 0.002. This indicates that customer satisfaction increases as the port's performance improves. It follows that ports must strive to enhance their performance continuously to preserve customer satisfaction, as it is a critical factor in maintaining and increasing their market share in the port industry.

The outcome of the analysis test provides additional insight into the relationship between relationship quality and customer satisfaction. The results indicate a positive correlation with a path coefficient of 0.892 and a p-value of 0.004. This suggests that as the quality of the relationship between the port and the customer improves, there is a corresponding increase in the level of customer satisfaction. The implication of this finding is that ports should focus on creating and enhancing high-quality relationships with customers to ensure continued customer satisfaction.

Furthermore, the outcome of the analysis examination reveals a positive and substantial correlation between service quality and the performance of ports. The path coefficient measures at 0.930 with a p-value of 0.005. This indicates that the better the quality of services that a port offers, the more efficient and effective their performance will be. Consequently, this result suggests that it is crucial for ports to prioritize and enhance the quality of their services to attain a better overall performance.

According to the results of the analysis test, it has been revealed that the correlation between the quality of the relationship and port performance (relationship quality -> port performance) as well as the association between service quality and customer satisfaction (service quality -> customer satisfaction) is not statistically substantial. This indicates that, within the context of the study, these factors may not play a significant role in influencing the connection between the customer and the port.

The results suggest that ports should rethink their use of these variables in their business strategy and decision-making processes.

The Smart-PLS analysis provides additional findings that highlight a noteworthy correlation between Relationship Quality and Customer Satisfaction. The coefficient value of 0.892 indicates a strong relationship between the quality of the customer-port service interaction and the level of satisfaction experienced by the customer. This finding implies...
that ports must prioritize the establishment of good relationships with customers and seek to improve positive interactions in order to enhance overall customer satisfaction.

Furthermore, there exists a substantial correlation between Service Quality and Port Performance, as evidenced by a coefficient of 0.930. This indicates that the better the quality of services that the port provides, the more efficient it becomes in delivering services to its customers. As a result, the implication of this finding is that the port must constantly strive to upgrade the quality of its services if it wishes to improve its overall performance and deliver greater value to its customers.

After conducting a Smart-PLS analysis, it is evident that Relationship Quality, Service Quality, and Port Performance have a significant correlation with Customer Satisfaction. These findings indicate that ports should prioritize these three variables and aim to enhance the quality of service provided to increase customer satisfaction and sustain their competitive edge within the port industry. Furthermore, these results can serve as a valuable reference point for the development of theories related to service management in the port industry.

CONCLUSION

After analyzing the data, it is evident that there is a strong correlation between the performance of a port and the satisfaction of its customers. Additionally, it has been observed that there is also a connection between the quality of the relationship between the port and its customers and the resulting satisfaction of the latter. Hence, it is recommended that the industry prioritize the enhancement of customer service quality and focus on identifying and addressing the factors that influence the dynamic between companies and their customers. This study can serve as a valuable resource for the industry's efforts to elevate customer satisfaction by improving service quality and fostering better relationships with customers.

There are two points to consider. Firstly, the findings of the analysis indicate an insignificant correlation between Port Performance and Relationship Quality. However, this does not necessarily negate the influence of other factors on this relationship. Therefore, it is recommended to broaden the sample size and take into account other potential factors that could impact the correlation between Port Performance and Relationship Quality in order to conduct more extensive research.

The analysis reveals three key findings. Firstly, there is no significant correlation between Service Quality and Customer Satisfaction. Secondly, there is a significant relationship between Service Quality and Port Performance. Thirdly, based on these findings, it is recommended that the industry prioritize the quality of services offered to customers, while simultaneously ensuring effective and efficient operational performance.

The fourth point to consider in this study is the limited size of the sample used, which may not provide a complete representation of the population. As a result, it is recommended that additional research be conducted using a larger sample that is more representative of a broader population.

The Smart PLS method was utilized for analytical purposes in this study; however, it is recommended that future research explore alternative analytical methods like Partial Least Square (PLS) or Structural Equation Modeling (SEM).

REFERENCES


