

The Influence Of Loading And Unloading Facilities, Development Of Port Technology, And Hr Quality On Service User Satisfaction Which Is Mediated By Service Performance In Parit Rempak Port

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Abstract

The aim of this study is to determine how much influence the variables Loading and Unloading Facilities, Port Technology Development, HR Quality have on Service Performance (Z) in their impact on Service User Satisfaction using the Structural Equation Method (SEM-PLS). Sampling was carried out by distributing questionnaires with purposive sampling to 250 respondents from port service users. The study results show that there are positive and significant results between Port Technology Development and Human Resource Quality on Service Performance; Loading and Unloading Facilities, Quality of Human Resources, and Service Performance on Service User Satisfaction; Service Performance mediates the relationship between Port Technology Development and Service User Satisfaction; Service Performance mediates the relationship between HR Quality and Service User Satisfaction, as well as 3 hypotheses that are rejected, namely Loading and Unloading Facilities have a negative and insignificant effect on Service Performance, Port Technology Development has a positive but not significant effect on Service User Satisfaction, and Service Performance does not mediating the relationship between Loading and Unloading Facilities and Service User Satisfaction at Parit Rempak Port.

Keywords: Loading and Unloading Facilities, Port Technology Development, Human Resource Quality, Service User Satisfaction, Service Performance.

INTRODUCTION

Famous as a maritime country, Indonesia is a country consisting of islands, as the largest archipelagic country, Indonesia is separated by a vast ocean. Seeing this, the maritime or shipping sector is an important aspect to help economic, social, defense, government, culture, security or military life, and others. Shipping has a very broad scope, starting from passenger and goods transportation, hydrography, coast guarding, sports activities, to recreation and tourism. Infrastructure such as ports is very much needed to support sea transportation facilities. Indonesia is known as the largest archipelagic country in the world with a total of 17,508 islands and with a very long sea of 94,166 km, it is the country with the second longest coastline after Canada. This represents great potential for Indonesia, especially in the maritime sector.

In line with this, it was during the current administration of President Joko Widodo that there was talk of the Indonesian Maritime Revolution. The Maritime Revolution in President Jokowi's government began with a big vision of building a "Sea Highway" connecting western and eastern Indonesian ports, from Belawan to Sorong. So currently the government's focus is on building port infrastructure and other maritime potential with one of the main goals being to improve the integrity of the national flow of goods (logistics).

As a means of transportation and as a valid potential source for the region, the port is an asset for Karimun Regency's source of original regional income. Karimun Regency is included in the Free Trade Zone (FTZ) or free trade route and is the third most busy area in the Riau Islands after Batam and Tanjung Pinang. As a transit area, construction and development of infrastructure at ports can support free trade areas. One of the ports in Karimun Regency is the Parit Rempak Cargo port. Parit Rempak Cargo Port is located in a geographical position of 01°-00'-15" N to 01°-00'-25" N and between 103°-21'-00" E to 103°-21'-15" E with an area land area of 10,250 m² and water area of 2.4 Ha (Minister of Transportation Regulation No. 17 of 2013).

Another problem that occurs is related to the Parit Rempak Port which is managed by BUP, in this case PT. Karya Karimun Mandiri (PT. KKM) is related to service user satisfaction where:

1. Bad service where service users may experience dissatisfaction with the services provided by PT. KKM at Parit Rempak Port, such as delays in service, lack of adequate facilities, or unfriendly staff behavior.
2. Inadequate infrastructure where there is a lack or lack of facilities at the port such as narrow waiting rooms, lack of parking space, or difficult access can be a cause of service user dissatisfaction.
3. Safety and security problems related to shipping safety, security of goods and passengers, as well as the lack of adequate security measures at ports can become serious problems.
4. Tariff or fee policy where service users may feel dissatisfied with the tariffs or fees charged by PT. KKM, especially if it is not commensurate with the services provided.

Identified problems that occurred regarding the performance of services at Parit Rempak Port carried out by BUP, in this case PT. Karya Karimun Mandiri (PT. KKM), namely:

1. The performance of the services provided by BUP by PT KKM in the operational management of Parit Rempak Port depends on the 3rd party
2. Have not communicated well with service users regarding the services that can be provided by BUP PT. KKM so that there are still service users who feel dissatisfied
3. The structure of operational costs and forms of port management cooperation with third parties need to be evaluated.
4. There are other port competitors in Karimum district which also provide loading and unloading activities.
5. There are still very few human resources who understand operations and ports
6. Doesn't have an accessible website yet
7. Not yet using digital technology for operations or management of Parit Rempak Port

Furthermore, Article 34 of Law Number 25 of 2009 concerning Public Services regulates how officials should behave in serving the public. However, from the existing reality, the author assesses that the public services provided by the port

business entity as the manager of Parit Rempak Port have not been or have not been implemented well. This can be seen from the many problems or phenomena that exist related to loading and unloading facilities at Parit Rempak Port, such as:

1. Loading and unloading facilities and infrastructure carried out or provided by port business entities as service providers at Parit Rempak Port are still lacking in providing public services. This is not in accordance with current regulations, especially within the scope of the author's title, Minister of Transportation Regulation Number 37 of 2015 concerning Sea Passenger Transport Service Standards.
2. Port officers have limited loading and unloading facilities to provide services to the public as port service users, and location constraints in the port environment are still limited.

The second factor is technological development, where the development of port infrastructure has a positive effect on the Indonesian economy as a whole, because ports are an important gateway for international trade. There is another factor, namely the development of port technology at the port. The development of modern technology in port management has an important role in increasing efficiency, productivity and overall port performance. Technology can include automation systems, computer-based logistics management, real-time cargo tracking, and so on. The use of appropriate technology can help reduce loading and unloading times, increase monitoring accuracy, and increase the safety and reliability of operations.

Problems related to technology development at Parit Rempak Port which is managed by BUP, in this case PT. Karya Karimun Mandiri (PT. KKM) where:

1. Have not communicated well with service users regarding the services that can be provided by BUP PT. KKM
2. Doesn't have an accessible website yet
3. Not yet using digital technology for operations or management of Parit Rempak Port

The third factor is human resource quality; at Parit Rempak Port, this includes TKBM, truck transporters, and port staff. When it comes to an organization's ability to succeed, its people resources are its most valuable asset. A higher caliber of human resources will translate into greater work output. An organization or business may accomplish its objectives far more efficiently if its employees perform well. The quality of human resources plays a major role in an organization's ability to meet its objectives. A government organization's ability to survive and thrive rests entirely on its workforce, making human resources a critical component of the organization.

Phenomena or problems that occur in the quality of human resources at Parit Rempak Port are:

1. Lack of education and training where reports do not provide adequate training to employees, so the quality of human resources can be hampered
2. The qualification mismatch is still hiring employees who do not have the appropriate qualifications for the work they do can result in low performance and potential safety problems
3. Employees who feel unappreciated or do not receive adequate incentives may lose motivation to work effectively
4. The port does not provide clear career paths and development opportunities
5. Employees may feel unmotivated to have maximum influence.
6. Unsafe, uncomfortable or inadequate working conditions can affect employee well-being and productivity.

7. Ports do not yet have good HR planning to ensure that the number of employees, qualifications and skills match operational needs and if ports still do not adopt the latest technology, employees may not have sufficient training to use new systems or adapt to operational changes.

The gap in research previous research (Mulatsih et al., 2018) discovered that the variables related to loading and unloading service speed, facilities/equipment factors, and officer concern (empathy) all positively and significantly impacted customer satisfaction. According to research, customer integration significantly impacts quality performance (Han, 2018) Moreover, vessel calls and cargo throughput are positively impacted by cost performance.

Based on background problems and research gaps This research with previous research conducted lies in the variables used, especially service user satisfaction and the independent variables used, where the object of research is mostly not shipping companies, the data analysis method where the tool used is different, namely SmartPLS. Apart from that, from the results of previous research there were journals which stated that there was no significant influence. So the researcher is interested in conducting research and preparing a thesis proposal with the title "The Influence of Loading and Unloading Facilities, Port Technology Development, and Human Resource Quality on Port Service User Satisfaction as mediated by Service Performance at Parit Rempak Port"

METHODOLOGY

This study employed quantitative and causal association techniques as its research methodology. Research demonstrating the strength of the link between two or more variables is done using the causal association approach. A connection between cause and effect is known as a causal link. Both independent (influencing) and dependent (affected) variables are included in this study. A quantitative approach to research examines the connection between variables using numerical data. This research will explain the influence of loading and unloading facilities, port technology development and human resource quality on service user satisfaction mediated by service performance at Parit Rempak Port.

The data used in this research is primary data. The data in this research was obtained by distributing questionnaires to Parit Rempak Port service users managed by PT. KKM with a total of 50 companies consisting of Shipping Lines (Shipping Companies), EMKL (Sea Freight Expeditions) and Trucking companies in loading and unloading activities. Saturated sampling combined with a nonprobability sampling strategy yielded the sampling method used in this study. Because the population consisted of 50 clients or users of loading and unloading services, the researchers used this sample strategy. As defined by (Riduwan, 2018), "saturated sampling is a sampling technique when the entire population is used as a sample and is also known as a census." Thus, a sample of 250 service customers was used for saturation sampling. Many respondents who worked for firms that conducted business at Parit Rempak Port sampled. The SmartPLS data analysis program, version 3.2.9, analyzes the structural equation model (SEM) based on partial least squares (PLS) used in this study.

RESULTS AND DISCUSSION

RESULTS

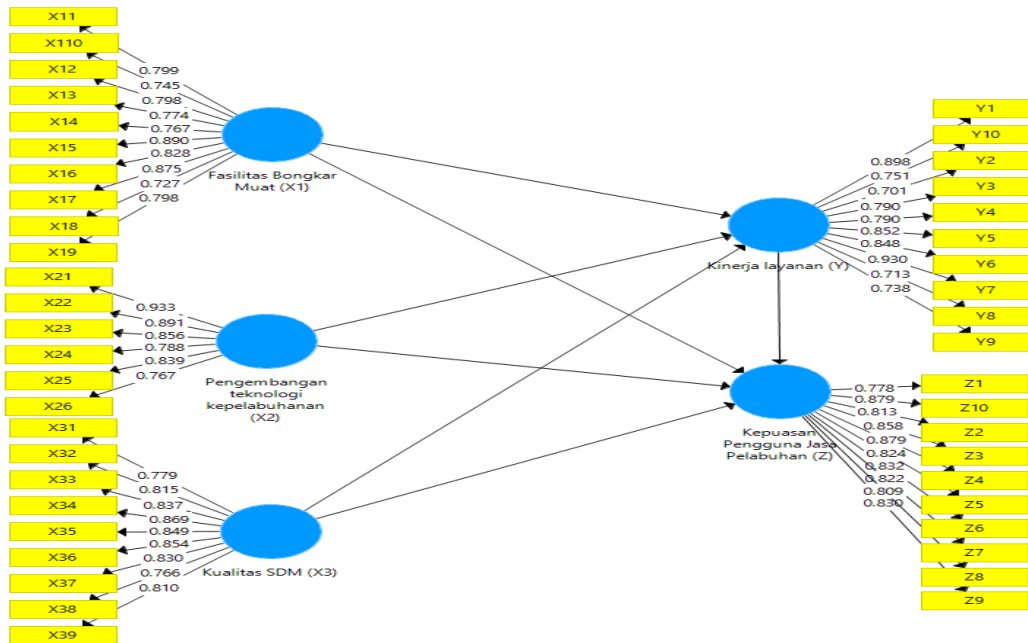
In this research, there are 46 manifest variables and 5 latent variables, namely loading

and unloading facilities (X1) which is measured by 10 manifest variables, port technology development (X2) which is measured by 6 variable manifest, HR quality (X3) which is measured by 9 variable manifest, service performance (Y) which is measured by 10 manifest variables, port service user satisfaction (Z) which is measured by 10 manifest variables.

Analysis Measurements (Outer Model)

The *outer model* was used to evaluate the model's dependability and validity. Convergent and discriminant validity of the indicators comprising the latent construct and composite reliability for the indicator block are used to assess the Outer Model with reflexive indicators.

Figure 1. Outer Loading



Source: Smart PLS Program Output (2023)

According to the *Rule of Thumb*, the loading factor value must be more than 0.70, which is often employed to evaluate convergent validity. Figure 1 demonstrates that variable indicators that satisfy convergent validity have a high degree of validity and an outer loading value larger than 0.70.

Average Variance Extracted (AVE)

Convergent validity It can also be seen from the Average Variance Extracted (AVE) value. In this study, the AVE value for each construct was above 0.5. Therefore, there are no convergent validity problems in the model tested. The results of the Average Variance Extracted value can be seen in table 4.

Table 4 Average Variance Extracted

	Average Variance Extracted (AVE)
Loading and Unloading Facilities (X1)	0.643
Port technology development (X2)	0.718
HR Quality (X3)	0.679
Service performance (Y)	0.647
Port Service User Satisfaction (Z)	0.694

Source: Smart PLS Program Output (2023)

From Table 4 it is known that the AVE value for each construct is above 0.5. As a result, the model evaluated had no issues with convergent validity, indicating that the components in this research model have high convergent validity.

Discriminant Validity

Discriminant validity is used to ensure that each notion in a construct or latent variable is distinct from other variables. Examining the Heterotrait-Monotrait Ratio (HTMT) value using the maximum HTMT value limit of 0.90 is the following criteria in the discriminant validity test. Table 3 presents the findings of the Heterotrait-Monotrait discriminant validity test.

Table 3 Heterotrait-Monotrait Ratio (HTMT)

	Facility Demolish Load (X1)	Satisfaction User Service Harbor (Z)	Perform ance service (Y)	Quality HR (X3)	Development technology port (X2)
Unloading Facilities Load (X1)					
User Satisfaction Port Services (Z)	0.485				
Service performance (Y)	0.222	0.585			
HR Quality (X3)	0.295	0.856	0.583		
Development port technology(X2)	0.390	0.240	0.469	0.096	

Source: Smart PLS Program Output (2023)

The variables used in this study have discriminant solid validity in compiling their respective variables, according to the data shown in Table 3 above. While values over 0.85 to a maximum of 0.90 are still deemed adequate, the recommended measurement value for HTMT analysis in PLS has been adjusted to be less than 0.85. In Table 3, the HTMT criteria is <0.9, so it has met the discriminant validity test criteria.

Reliability Test

The *outer model* may also be quantified by examining the construct's or latent variable's reliability, determined by the composite reliability value of the indicator block that measures the construct and convergent and discriminant validity assessments. The following table displays the PLS output findings for the composite reliability and Cronbach alpha values:

Table 4 Reliability

Variable	Composite Reliability	Cronbach's Alpha	Conclusion
Loading and Unloading Facilities (X1)	0.947	0.938	Reliable
Port technology development (X2)	0.938	0.921	Reliable
HR Quality (X3)	0.950	0.941	Reliable

Service performance (Y)	0.948	0.938	Reliable
Port Service User Satisfaction (Z)	0.958	0.951	Reliable

Source: Smart PLS Program Output (2023)

Based on the table above, it can be concluded that the variables are loading and unloading facilities (X1), port technology development (X2), human resource quality (X3), service user satisfaction (Z), and Service performance (Y) declared reliable because it is above 0.7. Thus, all constructions have acceptable dependability based on the necessary minimum value restrictions.

Structural Model Analysis or Inner Model

The inner or structural model is tested to determine how the research model's constructs, significant values, and R-square relate to one another.

Q- Square

Q-square can be seen in the blindfolding calculation results in the construct cross validated redundancy section. The results of these calculations can be seen in table 6 below.

Table 6 Results blindfolding

	SSO	SSE	Q ² (=1- SSE/SSO)
Unloading Facilities Load (X1)	2500,000	2500,000	
User Satisfaction Port Services (Z)	2500,000	1250,699	0.500
Service performance (Y)	2500,000	1754,945	0.298
HR Quality (X3)	2250,000	2250,000	
Development port technology (X2)	1500,000	1500,000	

Source: Smart PLS Program Output (2023)

From the calculation results in table 4.32. Q2 values are 0.298 and 0.500. Because the Q2 value is more than zero, the model has fulfilled predictive relevance where the model has been reconstructed well.

Goodness of Fit (GoF) Assessment

Apart from that, based on data processing that has been carried out using program SmartPLS 3.0 is obtained Model Fit as following :

Table 6 Models Fit

	Saturated Model	Estimated Model
SRMR	0.064	0.064
d_ ULS	4,188	4,188
d_ G	4,849	4,849
Chi-Square	4628,426	4628,426
NFI	0.649	0.649

Source : Outputs Program Smart PLS (2023)

Table 6 below displays the goodness of fit test results for the PLS model. The NFI value of 0.651 indicates FIT. Therefore, it is possible to infer from these findings that

the research model has a high goodness of fit and may be used to test the research hypothesis.

R Square (R²)

The first step in evaluating the structural model using PLS is to determine the structural model's predictive capability by examining the R-square value for each endogenous latent variable. The impact of certain exogenous latent factors on the potential substantive effect of endogenous latent variables may be explained by changes in the R-Square value. The model may be classified as strong, moderate, or weak based on its R-Square values of 0.75, 0.50, and 0.25. Table 8 shows the R-Square value.

Table 7 Hospital Resultsquare

	R Square	R Square Adjusted
User Satisfaction Port Services (Z)	0.732	0.728
Service performance (Y)	0.473	0.466

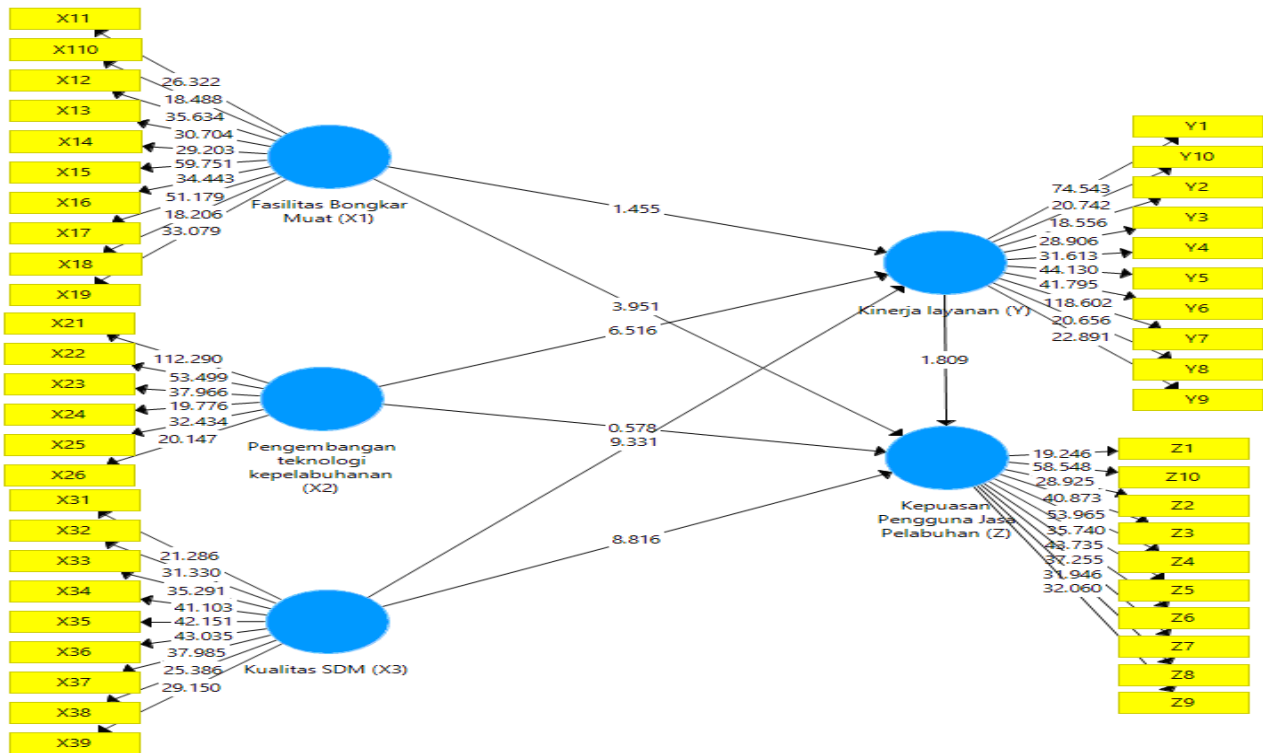
Source: Smart PLS Program Output (2023)

Based on Table 7 above, it shows that the R Square value for the service performance variable is 0.473. These results explain that the percentage of service performance is 47.3%. Based on this, the results of the R² calculation show that the value is strong. This means that the variables loading and unloading facilities and port technology development have a direct influence on service performance by 47.3% and the remaining 52.7% is influenced by other variables.

Meanwhile, the R Square value for the service user satisfaction variable is 0.732. These results explain that the percentage of service performance is 73.2%. Based on this, the results of the R² calculation show that the value is strong. This means that the variables loading and unloading facilities, port technology development, human resource quality and service performance have a direct influence on service user satisfaction by 73.2% and the remaining 26.8% is influenced by other variables.

Hypothesis Evaluation

Hypothesis evaluation was carried out using the bootstrapping method which aims to minimize the problem of abnormal research data. The hypothesis can be accepted if the P values <0.05 and t statistics >1.65



Source : Outputs Program Smart PLS (2023)

Figure 2 Bootstrapping

Table 8 Results of Bootstrapping Analysis Direct Influence and Indirect Influence

	Direct Influence and Influence Not Influence	Coefficient Parameter	T-Statistics	P-Values	Results
H1	Loading and Unloading Facilities (X1) -> Service performance (Y)	-0.099	1,455	0.073	Rejected
H2	Port technology development (X2)-> Service performance (Y)	0.431	6,516	0,000	Accepted
H3	HR Quality (X3) -> Service performance (Y)	0.548	9,331	0,000	Accepted
H4	Loading and Unloading Facilities (X1) -> Port Service User Satisfaction (Z)	0.231	3,951	0,000	Accepted
H5	Port technology development (X2_ -> Port Service User Satisfaction (Z)	0.035	0.578	0.282	Rejected
H6	Quality of Human Resources (X3) -> Port Service User Satisfaction (Z)	0.677	8,816	0,000	Accepted
H7	Service performance (Y) -> Service User Satisfaction Harbor (Z)	0.121	1,809	0.036	Accepted
H8	Loading and Unloading Facilities (X1) -> Service performance (Y) -> Port Service User Satisfaction (Z)	-0.012	1,133	0.129	Rejected
H9	Port technology development (X2)-> Service performance (Y) -> Port Service User Satisfaction (Z)	0.052	1,702	0.045	Accepted
H10	HR quality (X3) -> Service performance (Y) -> Port Service User Satisfaction (Z)	0.066	1,763	0.039	Accepted

Source : Outputs Program Smart PLS (2023)

DISCUSSION

1. Influenceloading and unloading facilities on service performance

Based on the results of statistical calculations (table 9), it can be concluded that the loading and unloading facility variable does not have a direct influence on the service

performance variable at Parit Rempak Port. This is proven by the test results which show a path coefficient value of -0.099 (>0) and a statistical T value of 1.455 ($t \text{ count} < t \text{ table}$, 5% significance = 1.65), so that Hypothesis 1 is rejected.

Because the loading and unloading process still relies heavily on manual workers and has not adopted adequate technology or automation, this can limit operational efficiency. Ineffective management in managing port operations, including poor coordination between various stages of loading and unloading, can be a factor that hinders improving service performance. Poor loading and unloading facilities, such as damaged or inadequate docks, can hamper operational efficiency. Inadequate infrastructure can be an obstacle to improving overall service performance.

This is also in line with research conducted by (Yani & Apriady, 2018) Facilities do not have a significant effect on the effectiveness of loading and unloading activities and ship performance.

2. The influence of port technology development on service performance

Based on the results of statistical calculations (table 9) it can be concluded that variable port technology development has a positive and significant direct influence on the variable service performance at Parit Rempak Port. This is proven by the test results which show a path coefficient value of 0.431 (>0) and a statistical T value of 6.516 ($t \text{ count} > t \text{ table}$, 5% significance = 1.65), so that Hypothesis 2 is accepted.

Technological developments have become one of the key factors in increasing the efficiency and effectiveness of port operations. The use of technology such as loading and unloading automation systems, autonomous mobile equipment, and sensor-based port management systems can reduce dependence on manual work. This can increase efficiency and reduce the potential for human error in the loading and unloading process. Technological development can also contribute to efforts to reduce the environmental impact of port operations, for example by using electrical equipment or renewable energy. The magnitude of the influence of port technology development on service performance can vary depending on the extent to which the technology is implemented, management policies and investments made. However, with the right application of technology, ports can improve efficiency, capacity, safety and overall service quality. Therefore, it is important for Parit Rempak Port to continue to monitor technological developments and integrate them into their operations to improve service performance.

This is also in line with research conducted by (Syayuti et al., 2023) There is a direct, significant positive influence of port technology development on port operational performance services at Tanjung Priok Port.

3. Influence of HR quality on service performance

Based on the results of statistical calculations (table 9) it can be concluded that variable quality of human resources has a positive and significant direct influence on the variable service performance at Parit Rempak Port. This is proven by the test results which show a path coefficient value of 0.548 (>0) and a statistical T value of 9.331 ($t \text{ count} > t \text{ table}$, 5% significance = 1.65), so that Hypothesis 3 is accepted.

Employees who have high quality human resources tend to have better abilities in facing complex challenges in port operations. They can address issues quickly and provide effective solutions, which in turn improves overall service performance. Employees who have a deep understanding of the port industry will be better able to anticipate customer needs and respond in an effective manner. They will also be

better prepared to adopt best practices and the latest innovations that can improve service quality.

This is also in line with research conducted by (Han, 2018) shows that customer integration has an important influence on quality performance. Additionally, cost performance has a positive impact on vessel calls and cargo throughput.

4. Influence of loading and unloading facilities on service user satisfaction

Based on the results of statistical calculations (table 9) it can be concluded that variable loading and unloading facilities has a positive and significant direct influence on the service user satisfaction variable at Parit Rempak Harbor. This is proven by the test results which show a path coefficient value of 0.231 (>0) and a statistical T value of 3.951 ($t_{count} > t_{table}$, 5% significance = 1.65), so that Hypothesis 4 is accepted.

Loading and unloading facilities are an important component in the logistics supply chain and can influence the experience of port service users. Good and efficient loading and unloading facilities can ensure goods can be transported quickly and on time. This helps avoid delays in delivery and maintain customer confidence. An efficient loading and unloading process also creates a more positive experience for service users. Customers who can experience a smooth shipping process will be more satisfied with the services provided by the port. Modern loading and unloading facilities with adequate equipment can increase port capacity and ensure that services can be carried out well.

This is also in line with research conducted by (Mulatsih et al., 2018) There is a positive and significant influence between the variable speed of loading and unloading services on customer satisfaction, the factor of loading and unloading facilities/equipment on customer satisfaction, as well as officer concern (empathy) for customer satisfaction.

5. Influence of port technology development Regarding service user satisfaction

Based on the results of statistical calculations (table 9) it can be concluded that variable port technology development is not has a direct influence on the service user satisfaction variable at Parit Rempak Harbor. This is proven by the test results which show a path coefficient value of 0.035 (>0) and a statistical T value of 0.578 ($t_{count} < t_{table}$, 5% significance = 1.65), so that Hypothesis 5 is rejected.

Technology development may not have a significant impact if the technology applied is not appropriate or relevant to the needs of users at the port. If technology implementation is not carried out well and causes system disruption or instability in port operations, this can affect user satisfaction.

This is also in line with research conducted by (Prasetyo, 2020) with the results that the quality of information has no effect on user satisfaction because the majority of respondents to this research are operators whose only job is to record transactions so they do not need report results. Also in line with research by (Zulfianto, 2019) where the use of Information Technology (IT) has an insignificant positive effect on Customer Satisfaction. This shows that the higher use of technology does not always increase online motorcycle taxi customer satisfaction, so this hypothesis is rejected. This means that the use of information technology is not the main factor in creating customer satisfaction.

6. Influence of HR Quality Regarding service user satisfaction

Based on the results of statistical calculations (table 9) it can be concluded that

variable quality of human resources has a positive and significant direct influence on the service user satisfaction variable at Parit Rempak Harbor. This is proven by the test results which show a path coefficient value of 0.677 (>0) and a statistical T value of 8.816 ($t \text{ count} > t \text{ table}$, 5% significance = 1.65), so that Hypothesis 6 is accepted.

Employees who have good quality human resources tend to provide professional and friendly service to service users. They are able to provide accurate information, help service users in resolving problems, and provide positive experiences that can increase service user satisfaction. Employees who are skilled at communicating well will be able to clearly and effectively convey information to service users. Good communication can increase understanding between customers and employees, thereby reducing uncertainty and increasing service users' trust in the services provided.

This is also consistent with studies by (Syayuti et al., 2023) which found that the performance of loading and unloading staff and port infrastructure positively impacted terminal productivity and port operational performance at Tanjung Priok Port. (Mulatsih et al., 2018) with the findings indicating that customer satisfaction is positively and significantly impacted by the speed at which loading and unloading service factors.

7. Impact of service performance on service user satisfaction

Based on the results of statistical calculations (table 9) it can be concluded that variable service performance has a positive and significant direct influence on the service user satisfaction variable at Parit Rempak Harbor. This is proven by the test results which show a path coefficient value of 0.121 (>0) and a statistical T value of 1.809 ($t \text{ count} > t \text{ table}$, 5% significance = 1.65), so that Hypothesis 7 is accepted.

Responsive service performance creates a better relationship between customers and ports. Consistent service performance helps ensure that service users know what to expect from the port in every interaction. This creates a sense of trust and can increase satisfaction. Good service performance includes the ability to provide timely and safe delivery of goods. Uncertainty in delivery can result in customer dissatisfaction. Ports that communicate well with service users, providing clear information about shipping status and potential changes, can provide a better experience for service users. Good service performance also includes the ability to handle customer complaints and problems quickly and effectively. Customers who see that the port responds well to their problems will be more satisfied.

This is also in line with research conducted by (Syafri et al., 2023) that partially Service Performance has a positive and significant effect on Service User Satisfaction at PT Pelindo Terminal Petikemas Bitung.

8. Influence of loading and unloading facilities on service user satisfaction through service performance

Based on the results of statistical calculations (table 9) it can be concluded that variable unloading facilities has an indirect influence on the service user satisfaction variable service performance through service performance at Parit Rempak Port. This is proven by the test results which show a path coefficient value of -0.012 (>0) and a statistical T value of 1.133 ($t \text{ count} < t \text{ table}$, 5% significance = 1.65), so that Hypothesis 8 is rejected.

Service users may focus more on other aspects of port services, such as minimal waiting times, security of goods, or costs of using facilities. If unloading facilities do

not directly meet user needs or preferences, their impact on satisfaction may be limited. External factors such as weather conditions, government regulations, or market fluctuations can affect the performance of unloading facilities. If these factors are not controlled, the unloading facility variable may not be able to make a significant contribution to user satisfaction.

This is also in line with research conducted by (Yani & Apriady, 2018) facilities do not have a significant effect on ship performance. Likewise with research by (Retired, 2019) with the results that work facilities do not have a significant effect but have a positive influence on employee performance. According to research (Khairani et al., 2022) which says there is no influence of Employee Performance on Customer Satisfaction.

9. The influence of port technology development on service user satisfaction through service performance

Based on the results of statistical calculations (table 9) it can be concluded that variable port technology development has a positive and significant indirect effect on the service user satisfaction variable service performance through service performance at Parit Rempak Port. This is proven by the test results which show a path coefficient value of 0.052 (>0) and a statistical T value of 1.702 ($t \text{ count} > t \text{ table}$, 5% significance = 1.65), so that Hypothesis 9 is accepted.

Good and efficient loading and unloading facilities can influence service performance at Parit Rempak Port. Modern facilities, sophisticated equipment and adequate infrastructure can facilitate loading and unloading and logistics processes, which can have a positive impact on service performance. Service performance includes aspects such as delivery speed, delivery accuracy, good communication and friendly service. Good service performance will increase service user satisfaction because they will feel appreciated and receive services that meet their expectations. In this context, service performance acts as a mediator between loading and unloading facilities and service user satisfaction. This means that good loading and unloading facilities will improve service performance, and better service performance will increase service user satisfaction.

This is also consistent with research (Mulatsih et al., 2018) showing that officer concern (empathy) for customer satisfaction, the factor of loading and unloading facilities/equipment on customer satisfaction, and the variable speed of loading and unloading services on customer satisfaction are all positively and significantly correlated with each other. Customer integration has a significant impact on quality performance, as shown by (Han, 2018). Cargo throughput and vessel calls are also positively impacted by cost performance.

10. Influence of HR quality on service user satisfaction through service performance

Based on the results of statistical calculations (table 9), it can be concluded that the HR quality variable has a positive and significant indirect effect on the service user satisfaction variable service performance through service performance at Parit Rempak Port. This is proven by the test results which show a path coefficient value of 0.066 (>0) and a statistical T value of 1.763 ($t \text{ count} > t \text{ table}$, 5% significance = 1.65), so that Hypothesis 10 is accepted.

Good quality human resources at Parit Rempak Port can influence improved service performance, including process speed, accuracy and skills in handling services. Well-trained employees will be able to provide better service to service users,

which in turn can increase their satisfaction. High quality human resources can influence service users' perceptions of service performance at Parit Rempak Port. Well-trained employees tend to provide more responsive, professional and efficient services, which can directly influence service users' positive perceptions of the performance of the services provided. Improved service performance caused by good quality human resources will likely result in higher service user satisfaction. By improving service quality, service users will feel more satisfied with their experience at the port, which can create a positive impression and strengthen the relationship between the port and service users.

This is also consistent with the study by (Syayuti et al., 2023) which found that terminal productivity at Tanjung Priok Port is significantly impacted positively by the performance of port facilities and personnel who load and unload cargo (Mulatsih et al., 2018). The loading and unloading service speed variable positively and significantly impacts customer satisfaction.

Based on the R Square value for the service performance variable it is 0.473. These results explain that the percentage contribution to the influence of service performance is 47.3%. Based on this, the results of the R² calculation show that the value is strong. This means that the variables loading and unloading facilities and port technology development have a direct influence on service performance by 47.3% and the remaining 52.7% is influenced by other variables.

As for the service customer satisfaction variable, R Square value is 0.732. These findings clarify why the contribution to service customer satisfaction is 73.2% in magnitude. This being the case, the R² computation results indicate that the value is substantial. This means that the variables loading and unloading facilities, port technology development, human resource quality and service performance have a direct influence on service user satisfaction by 73.2% and the remaining 26.8% is influenced by other variables.

CONCLUSION

The research results show that

1. There is no direct influence of loading and unloading facilities on service performance at Parit Rempak Port.
2. There is a significant positive direct influence of port technology development on service performance at Parit Rempak Port, where every increase in port technology development will improve service performance.
3. There is a significant positive direct influence of HR quality on service performance at Parit Rempak Port, where every increase in HR quality will improve service performance.
4. There is a significant positive direct influence of loading and unloading facilities on service user satisfaction at Parit Rempak Port, where every increase in loading and unloading facilities will increase service user satisfaction.
5. There is no direct influence of port technology development on service user satisfaction at Parit Rempak Port
6. There is a significant positive direct influence of HR quality on service user satisfaction at Parit Rempak Port, where every increase in HR quality will increase service user satisfaction.

7. There is a significant positive direct influence of service performance on service user satisfaction at Parit Rempak Port, where every increase in service performance will increase service user satisfaction.
8. There is no indirect influence of loading and unloading facilities on service user satisfaction through service performance at Parit Rempak Port.
9. There is an indirect influence of port technology development on service user satisfaction through service performance at Parit Rempak Port.
10. There is an indirect influence of human resource quality on service user satisfaction through service performance at Parit Rempak Port.

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