

# Evaluation of The Operational Performance of The Hunimua Ferry Port, Maluku Province

Siti Nurlaili Triwahyuni<sup>1\*</sup>, Febriansyah<sup>1</sup> and Dona Aprija Putri<sup>1</sup> <sup>1</sup>Politeknik Transportasi Sungai, Danau dan Penyeberangan Palembang Email : sitinurlailitw@gmail.com

**Abstract.** The current service time at the Hunimua Ferry Port, based on temporary observations, shows that the queue time for vehicles boarding the ship takes more than 30 minutes, while the time to get on and off the ship takes more than 5 minutes. Based on the Decree of the Director General of Land Transportation Number KP-DRJD 539 of 2022 concerning Guidelines for Planning, Development and Performance Evaluation of River, Lake and Ferry Ports, existing indicators show that the performance of Hunimua Port still shows poor port performance. Therefore, it is necessary to evaluate the quality of performance, especially the performance of port operational services. The aim of this research is to analyze the operational performance of ships,

The results of the analysis show that the ship's operational service performance is in the very good category and must be maintained in the future. This is shown by the ship's maneuvering time of 2.82 minutes. The performance of loading/unloading operational services is in the poor category so it must be improved in terms of supporting the smooth flow of traffic at the port. This is shown by the time for vehicles to board the ship, the time for vehicles to get off the ship, and the time for vehicles to queue to board the ship, namely 3.36 minutes, 6.95 minutes, and 44.2 minutes. The performance of operational services regarding the utilization of Plengsengan I pier facilities is in the very good category, this is shown by the BOR value of 62.9%, while at the pierPlengsengan II is in the very bad category, indicated by a BOR value of 9.67%. However, the uneven use of the dock does not affect the operational time of the ship itself.

Keywords: Port of Ferry, Operational Performance, Indicators

## 1. Introduction

Port operational performance needs to be evaluated periodically so that port services run effectively and efficiently, which has an impact on increasing the mobility of the people served. One of the ferry ports which also influences people's mobility is the Hunimua Ferry Port. The port is a link between Seram Island and Ambon City, which is also an important route for distributing staple foods from Ambon City to Seram Island or vice versa. Hunimua Port is a ferry port managed by PT. ASDP Indonesia Ferry (Persero) Ambon Branch which serves inter-island routes within the province with the Hunimua-Waipirit crossing which is 11.5 miles and takes 1.5 hours. Hunimua Ferry Port has 5 vessels operating, among them is KMP. Terubuk, KMP. Inelika, KMP. Rokatenda, KMP. Sardinela and KMP.

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F. Pusriansyah et al. (eds.), Proceedings of the International Conference of Inland Water and Ferries

Transport Polytechnic of Palembang on Law, Economic and Management (IWPOSPA-LEM 2023), Advances in Economics, Business and Management Research 290,

Tatihu. These ships are managed by PT. ASDP Indonesia Ferry (Persero) Ambon Branch and also PD. Panca Karya.

### 2. Research Methodology

The method used in this research is a method with quantitative data. The quantitative data for this research are the ship's movement time, observations of the average time for vehicles to board the ship, observations of the average time for vehicles to board the ship, observations of the queuing time for vehicles to board the ship, and the BOR value, where the numbers resulting from meeting the standards are processed in calculations to obtain results of data analysis.

The research instrument used in this research is a survey form which is stated in the Decree of the Director General of Land Transportation Number KP-DRJD 539 of 2022 concerning Guidelines for Planning, Development and Performance Evaluation of River, Lake and Ferry Ports. According to Sugiyono in Nikmah, Ayun et al (2020:620) research instruments are tools used to measure natural phenomena or those being studied. Based on this understanding, it can be concluded that a research instrument is a tool used to collect data that is used to answer research problems. The survey form used to collect data contains observations of ship maneuvering times, observations of the average time for vehicles to board the ship, observations of the average time for vehicles to disembark from the ship,

## 3. Results and Discussion

#### 3.1 Data Presentation

The operational performance evaluation carried out at Hunimua Port includes several indicators, including indicators for ship movement time on the Hunimua-Waipirit route, performance indicators for operational service factors for loading/unloading vehicles (average time for vehicles boarding the ship, average time for vehicles disembarking). from the ship, and time queuing for vehicles to board the ship), as well as performance indicators on operational service factors on facility utilization in the form of dock usage level (BOR) in accordance with the Decree of the Director General of Land Transportation Number: KP-DRJD 539 of 2022 concerning planning, development and evaluation guidelines the performance of river, lake and ferry ports where in each operational service performance indicator there is a calculation that includes its own assessment.

#### 3.2 Data Analysis

#### **Analysis of Ship Operational Service Performance**

Analysis of ship operational service performance is carried out by measuring the length of ship service time in the port working area. In this analysis, maneuver time indicators are calculated. The maneuvering time indicator is the amount of time used for the ship to move from the anchoring location until the rope is moored (Tmt).

Based on the movement time assessment criteria in KP-DRJD 539 of 2022, the Hunimua Ferry Port received a score of 100 with the criteria being less than or equal to 4 minutes. This means that ship operational services at the Hunimua Ferry Port have very good and fast performance in terms of ship operations.

#### 3.3 Discussion

The ship processing time at the Hunimua Ferry Port is 2.82 minutes and the longest time is 3.16 minutes. Based on the criteria for assessing movement time in the Decree of the Director General of Land Transportation Number KP-DRJD 539 of 2022, ship movement time at the Hunimua Ferry Port is classified as very good and needs to be maintained in the future in order to increase the efficiency and effectiveness of ship operational service performance at the Hunimua Ferry Port .

The vehicle boarding time at the Hunimua Ferry Port is 3.36 minutes and the longest time is 4.39 minutes. Based on the assessment criteria for the average time for vehicles to board a ship in the Decree of the Director General of Land Transportation Number KP-DRJD 539 of 2022, it was found that the average time for vehicles to board a ship at the Hunimua Ferry Port is categorized as bad. Therefore, recommendations for improvement are needed, including:

The time for vehicles to get off the ship is 6.95 minutes and the longest time is 8.27 minutes. Based on the assessment criteria for the average time for vehicles to get off the ship in the Decree of the Director General of Land Transportation Number KP-DRJD 539 of 2022, it was found that the average time for vehicles to get off the ship at the Hunimua Ferry Port is categorized as very bad.

The average queue time for vehicles to board the ship is 44.2 minutes and the longest time is 64 minutes. Based on the assessment criteria for the average queuing time for vehicles to board a ship in the Decree of the Director General of Land Transportation Number KP-DRJD 539 of 2022, it was found that the queuing time for vehicles to board a ship at the Hunimua Ferry Port is categorized as very bad.

According to the Decree of the Director General of Land Transportation Number KP-DRJD 539 of 2022, it was found that Plengsengan I pier was categorized as very good, while Plengsengan II pier was categorized as very bad. Therefore, it is recommended to increase the use of Plengsengan II pier by not only using it as a berth for ships that are not operating that day, but also maximizing the use of both by not having to wait for ships at Plengsengan I pier, but also at Plengsengan II pier. Then, for ships that want to dock at Plengsengan II pier, they can be parked to the left of the catwalk so that Plengsengan II pier can be used.

## 4. Conclusion

The performance level of the Hunimua Ferry Port based on ship operational service performance indicators is categorized as very good with a score of 100 based on the maneuver time indicator. The performance level of the Hunimua Ferry Port based on loading/unloading operational service performance indicators is in the very poor category. This is shown by the performance indicator for the time vehicles board the ship in the poor category with a value of 40, while the performance indicator for the time the vehicle disembarks from the ship and the performance indicator for the time the vehicle queues to board the ship is categorized as very bad with a value of 20. The performance indicators on facility utilization is sufficient, where only Plengsengan I pier has a very good level of use with a value of 20.

The performance of ship operational services must be maintained at the level of performance in the future so that ship operations can become an example for improving performance in other service indicators. In improving the performance of loading/unloading operational services, it is best to implement ports that are truly sterile and port officers who are also firm in giving warnings to individuals who can hinder the loading/unloading process. Apart from that, repairs were made to the ship's ramp doors so as not to slow down time. The use of dock facilities is more optimized, in connection with the BOR value for Plengsengan I pier has reached a value of 100, but Plengsengan II pier is still underused. So it looks less effective and efficient in equalizing the use of facilities. It is hoped that equalizing the use of the pier in accordance with the existing port development plan will result in better performance in the future.

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