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The Operational of Wharf Performance for Paotere Port in Makassar

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Abstract: *The performance of the Makassar Paotere port is still low and has an impact on ship service. This study aims to find clarity about the performance of wharf in Paotere Port and solution alternatives for improve performance. The performance of Berth Occupancy Ratio for wharf of Paotere Port is 55% per month. Average value, utilization value for wharf VI as, VII, VIII and IX (GT 100 to 300) = 71.429%. This value is greater than the standard value issued by UNCTAD which is 70%, which means that currently wharf VI, VII, VIII and IX have been unable to serve the flow of ship visits. It was concluded that because the Paotere Port every year experienced a decrease in the flow of ship visits, it was not required to increase the length of the wharf and to improve the performance of the port wharf.*

Keywords: *Performance, wharf, Berth Occupancy, Port Infrastructure*

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I. Introduction

According to Law No. 17 of year 2008 concerning Shipping, ports are places that consist of land and/or surrounding waters with certain limits as a place of government activities and business activities that are used as a place for leaning boats, boarding passengers and loading and unloading logistics, in the form of terminals equipped with shipping safety and security facilities and port support activities as well as intra-location and inter-transportation modes.

The projected flow of ship visits at the Paotere wharf has decreased by 4%. Based on ship service, in year 2014 the Paotere Port was categorized as not good. Wharf utility and BOR indicator 126.42% (Prattyni, 2016). While in year 2025 the value of BOR is low at 8.50%. This value is far below the standard set by UNCTAD which is 70%. So it does not require the Paotere Port to increase the length of its pier (Bochary and Idrus, 2016).

In logistic loading and unloading services, the Paotere Port is considered to be inadequate with a value of 15 tons/hour smaller than the standard set based on the decision of the Director General of Sea Transportation for Makassar Port which is 25 tons/alley/hour, with an average length of berth (Berth Time) 9.74 hours and the average loading and unloading per ship 300.59 tons (Paola, 2016).

The performance of the Makassar Paotere port is still low, which has an impact on ship service (Nugraha, 2017). The performance capacity of a port can be measured based on the number of equipment, the number of logistic movements and loading and unloading times (Nurhadini. Et al., 2015). Repair of ship service and service for loading and unloading logistics will increase the number of ship visits (Sudjasta, 2016). Evaluations whose value is greater than the BOR recommended by UNCTAD and the decision of the Director General of Sea Transportation UM Number 002/38/18/ DJPL.11 Paotere Port facilities are still considered not feasible because they have not been regulated in the division of tasks and functions of each pier (Paola, 2016).

The level of service is a qualitative measure that explains the operational conditions in a flow of traffic and the perceptions of the users of these conditions. In the development of a pier and port, the level of service becomes a priority.

This research aims to find out the clarity of the performance of the Port of Paotere and the alternatives needed to improve the performance. This study was carried out at PT Pelindo IV (Persero) of Paotere Port Makassar Branch. This type of research is descriptive to conduct an analysis of the performance of Paotere wharfs.

Data collection was carried out by direct interviews with operators and ship-owners. From the operator, the Paotere Port Branch was available wharf capacity, used wharf capacity, used wharf length and available berth length. From the owner of the ship obtained the average length of time ship bounding, the ineffective time of the ship during mooring, the amount of effective time to carry out loading and unloading activities. Document

studies are carried out on the part of the operator to obtain incoming traffic of ships and logistic during the last 5 years, ship GT, wharf length and moor. The wharf performance of the Paotere Port was analyzed using Berthing Occupancy Ratio. The results obtained were shown in the form of a table. The ship's visit and the flow of the logistics are identified to determine its progress.

II. The Results

Figure 1 can be explained that the flow of ship visits entering the Paotere Port every year has decreased. From year 2014 to 2015 it has decreased by 9%. In year 2017 to 2108 there was a decrease in ship flow by 7.62%. The average decrease in the flow of ship visits for the last 5 years in the Paotere Port is 5.51%.

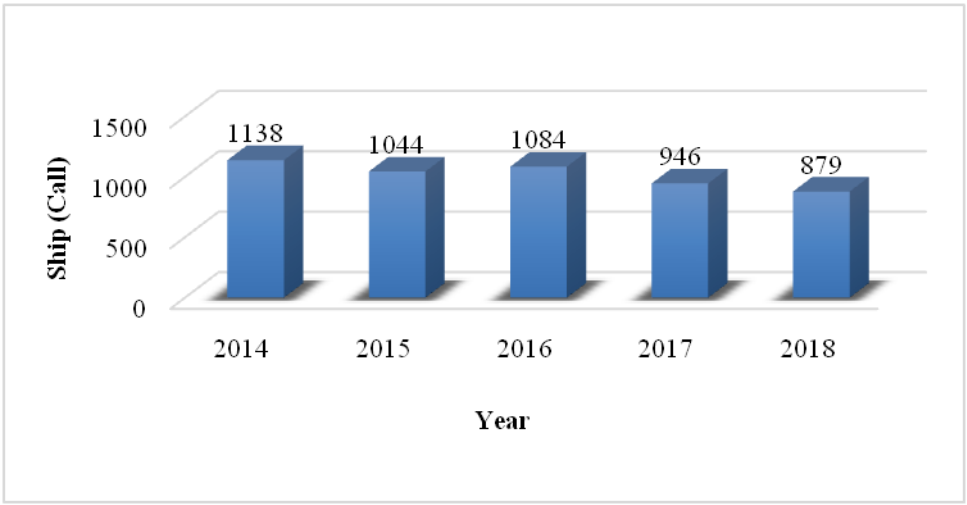

Figure 1. Flow of ship visits in the Paotere Port

Figure 2 can be explained that the loading/unloading flow at the Paoteres Port every year has decreased. In year 2014 to 2015 it has decreased by 24.48%. In year 2017 to 2018 it has increased by 28.97%. The average decline in unloading flows in the past five years was 2%. Logistics loaded from year 2014 to 2015 decreased by 8.75% and year 2017 to 2018 decreased by 5.12%. Average decrease in flow of logistics loaded is 4%.

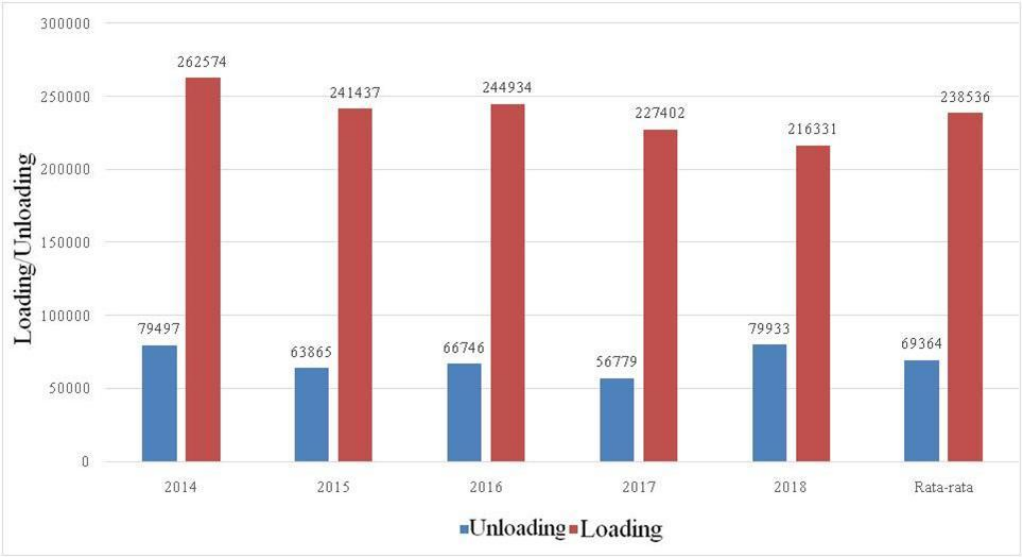

Figure 2. Traffic Cargo in the Paotere Port

Figure 3 can be explained that the percentage of ships based on GT. The flow of ship visits is dominated by ships leaning on piers III, IV, and V with a GT capacity of less than 100 which is 59.18%, then ships on wharf VI, VII, VIII and IX capacity of GT 100 to 300 are 38.10% and the last vessel on wharf X with GT> 300 at 2.72%.

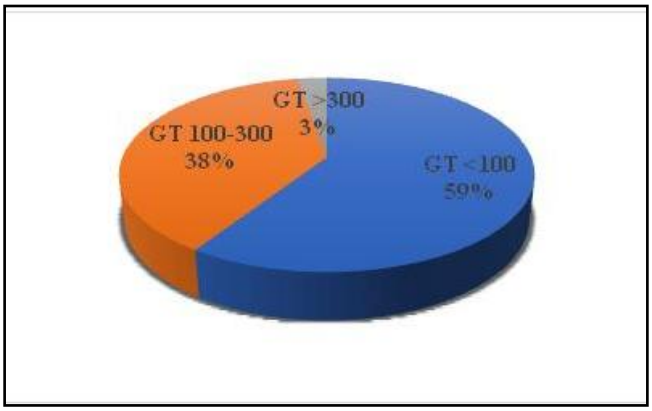

Figure 3. Percentage of ship based (Gross Ton)

Table 1 can be explained that the utilization of the Paotere Port wharfs. The average wharf utilization rate or Berth Occupancy Ratio (BOR) is 55.34%. From the average BOR, there are a number of high wharf BORs namely wharf BOR I and II (wharf LCT) = 39.45% and BOR wharf VI, VII, VIII and IX (GT 100 to 300) = 71,429%.

Table 1. Utilization of Wharf in the Paotere Port

No.	Wharf	Capacity (Ship)	BOR (%)
1	I and II	4	40
2	III, IV and V	12	59
3	VI, VII, VIII, and IX	9	71
4	X	4	12

III. Discussion

This research can be explained that the performance of the Makassar Paotere Port is still relatively low. The arrival time of the ship until the time of departure of the ship after carrying out relatively loading and unloading activities is very high per month. The annual visit of ships decreases, as does the flow of logistic. The average call of ships entering Paotere Port is 3 calls per day.

Loading and unloading equipment at the Paotere Port is currently not available. Loading and unloading activities rely solely on unloading and ship cranes with limited capacity as well as inadequate lighting facilities. Activities take place from 08.00 am to 22.00 pm. Currently Working Time in the Paotere Port is currently 15 hours/day while the time available is 24 hours. Poor ship service can affect effective time so much time to carry out loading and unloading activities (planned working hours) is wasted (Nugraha et al., 2017).

The level of wharf utilization for wharf I and II that is specifically intended to serve LCT vessels is 39.45%. Wharf III to V which is intended to serve KLM GT < 100 of 59.360%. The VI to IX wharf is intended to serve KLM GT 100 to GT 300 of 71,429%. As well as wharf X which is intended to serve KLM GT > 300 is 11,483%.

The wharf utilization rate is different because the available capacity of different GT must be served, the lowest BOR is wharf X where the wharf is for the largest GT while the available capacity is 4 call, the GT is large then the load capacity is large in this case the loading and unloading process is increasingly because the load is sometimes not always available in large quantities. In addition, the DO (Delivery Order) is issued 24 hours after the ship is docked; facilities and laborers are limited so that the average time in loading/unloading activities is around 7 days.

The lack of wharf facilities in the Paotere Port resulted in the wharf's performance not being optimal. The average utilization rate of the Paotere Port is 55.336% per month. From the average value, utilization values for wharf VI, VII, VIII and IX (GT 100 to 300) = 71.429%. The standard value issued by UNCTAD is 70%. Thus the wharf with a BOR value above 70% is not able to serve the flow/visit of incoming vessels.

Paotere Port is a stopover for various motorized sailing ships of the people of Sulawesi that come from various regions in Indonesia. Apart from being a port of folk boats such as Phinisi and Lambo, this port is also used for loading and unloading logistic and fishing centers has been used as an attractive tourism area to visit. Besides being treated to a row of typical Makassar people's boats, the Phinisi ship (www.arsy.co.id). Paotere Port requires the development of facilities and infrastructure to support tourism activities in the Paotere People's Port area (in accordance with Government regulations No. 69 of year 2001 concerning Ports) that one of the port facilities that must be provided is the presence of tourist facilities to support the port area (Nenny et al. , 2016).

Not only as a tourist area, Paotere Port also expected in the future to provide one other tourist attraction with marine tourism (Paola, 2016).

From the results of forecasting that until year 2025 the ship's call has decreased from 1,265 to 302 with a utilization rate of 8.50% so it does not require the Port of Paotere to increase the length of its wharf. This can be a reference for the Paotere Port to anticipate the decreasing number of call ships in the coming year (Bochary and Idrus, 2016).

To improve the performance of the current Paotere port wharf, especially pier VI, VII, VIII and IX (KLM GT wharf 100 to 300), we recommend that the liner queuing to wharf at the wharf, while using wharf X because the current of the vessel on the wharf is not even solid lots of opportunities for empty wharfs.

IV. Conclusion And Recommendation

The researcher concluded that the performance of the Paotere port wharf for wharf VI, VII, VIII and IX is now unable to service the flow of ship visits because the BOR value is above the standard value issued by UNCTAD. The Paotere Port annually decreases the flow of ship visits, so it does not requires the Paotere Port to increase the length of the wharf. To improve the performance of Paotere port wharfs, especially wharf VI, VII, VIII and IX (KLM GT wharf 100 to 300), the queuing vessels to lean on the wharf should temporarily use pier X because the current of the vessel on the pier is not crowded and there are many opportunities for empty wharf.

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