



## Effect of Manual System in Handling Documents Clearance in and Out Ship Service, Loading and Unloading Ship agency by PT. Bahari Eka Nusantara Sangkulirang branch, East Kalimantan

Ganda Toras Siregar<sup>1)</sup>, Roma Dormawaty<sup>2)</sup>, Nur Patria<sup>3)</sup>

<sup>1)</sup>Jakarta College of Sailing Sciences, Jl. Marunda Makmur No.1 Cilincing, North Jakarta. New York 14150

<sup>2)</sup>Jakarta College of Sailing Sciences, Jl. Marunda Makmur No.1 Cilincing, North Jakarta. New York 14150, Email: [romadormaty13@gmail.com](mailto:romadormaty13@gmail.com)

<sup>3)</sup>Jakarta College of Sailing Sciences, Jl. Marunda Makmur No.1 Cilincing, North Jakarta. New York 14150

**Abstract:** Bulk ship handling activities cannot be separated from the ship handling service plan, namely the arrival and departure of ships. Before the process of arrival and departure of the ship, several activities are carried out which are determined in advance by the shipping company together with the port manager and must be conveyed to the ship's side. The loading and unloading of ships coming and going, loading and unloading coal, requesting ship needs, handling clearance in and clearance out documents through Syahbandar manually whose service hours are limited, starting from 8 o'clock to 10 pm due to the shahbandar class which is still classified as KUPP class III, and also greatly limiting the movement and service of the ship service served. The purpose of this study is to find out how much influence the management of clearance documents in and out becomes longer, limited operating hours and delays in the loading and unloading process of ships, which are agentized by PT. Bahari Eka Nusantara Sangkulirang Branch, East Kalimantan. The approach method used is a descriptive quantitative method, while the data collection technique uses questionnaires, documentation, observations, and literature studies so that the influence / not between the manual clearance in and out system can be found on the service of the ship being inundated. The results of this study show that there is an influence between the manual clearance in and out system on the service of the ship being inundated.

**Keywords:** manual system, clearance in and out, ship service, ship.

### INTRODUCTION

Arrangements start from the beginning of the ship's arrival while at the port to the time of departure. In operating the bulk carrier there are various activities / activities of handling ship arrivals and departures, as well as regulating all ship needs. Bulk ship handling activities cannot be separated from the ship handling service plan, namely the arrival and departure of

ships. Before the process of arrival and departure of the ship, several activities are carried out which are determined in advance by the shipping company together with the port manager and must be conveyed to the ship's side. The laying of ships coming and going, loading and unloading coal, requesting ship needs, handling clearance in and clearance out documents through Syahbandar manually whose service hours are limited, starting from morning at 8 to 10 pm due to the syahbandar class which is still classified as KUPP class III and is in a remote area, and also greatly limits the movement and service of ship agencies served by PT. Bahari Eka Nusantara Sangkulirang Branch, East Kalimantan. The process that has been mentioned certainly has an influence on PT. Bahari Eka Nusantara Sangkulirang Branch, East Kalimantan as a shipping service provider.

## **RESEARCH METHOD**

### **Data Description**

a. Manual system clearance in and out X

In the opinion of Purwosutjipto (2003: 147) clearance is the management of various kinds of documents needed for the ship, very important for the safety of the ship, the goods transported, passengers and crew.

In the Dictionary of Shipping Terms & Maritime Encyclopedia there is a definition of Clearance as follows:

"Clearance is an official permit issued by a port official or shahbandar to give a ship permission to be ready to depart, if all ship letters and cargo letters are in accordance with the requirements and all costs have been paid in full and all obligations have been fulfilled" (Istopo, 1999:102).

b. Service Y

Ministry according to the fourth edition of the Big Indonesian Dictionary (KBBI) (2008:797) is defined as an effort to help prepare or take care of what others need.

### **Research Time**

The author carried out research for 12 (twelve) months which was recorded from August 2020 – August 2021 in the Sangkulirang area, East Kalimantan.

### **Research Site**

The place where the research is carried out is at PT. Bahari Eka Nusantara Sangkulirang branch – East Kalimantan, Jl. Wana Bhakti Benua Baru Ulu No. 53 RT/RW 00/00 Kel. Benua Baru Ilir Kec. Sangkulirang Kab. Kutai Timur. Prov. East Kalimantan Zip Code 75684

### **Approach Method**

In this study, the writing used a quantitative data approach method. The author uses a quantitative method by explaining two variables, namely the independent variable (manual clearance in and out system) and the dependent variable (the service of the ship being inundated).

### **Data Collection Techniques**

In discussing and researching a problem, data related to the problem will be discussed, then compiled and analyzed so that a clearer picture can be obtained to make it easier for the author to solve the problem. The data collection techniques that the authors use are obtained through:

a. Questionnaire

Questionnaires are an efficient data collection technique when the researcher knows with certainty the variables to be measured and knows what can be expected of the respondents. Questionnaires can be in the form of closed or open questions or statements, can be given to respondents directly or sent by post, the internet, or in person with face-to-face meetings between the examiner and the respondent.

b. Documentation

Documentation is a data collection technique by researching documentation that is already a company archive. This can be in the form of shipload documents, ship visit data, and other data related to agency services contained in the operational department of PT. Bahari Eka Nusantara Sangkulirang branch – East Kalimantan.

c. Observation

Observation is a data collection technique through direct observation of all activities in the field through Real Work practice which is carried out for 12 months at PT. Bahari Eka Nusantara Sangkulirang branch – East Kalimantan. This technique refers to the service activities provided by the relevant port operator unit in serving clearance in and out services using a manual system for ships occupied by PT. Bahari Eka Nusantara while in the Sangkulirang area.

d. Literature Studies

This technique is carried out by collecting data by reading, researching, quoting from books or references that can be presented as material for consideration and comparison regarding what is seen from existing theories. This literature study aims to obtain a theoretical basis by reading books and other documents related to the problems to be discussed.

## Research Subjects

Population in a study is a set of objects that can be used as a source of research in the form of objects, humans or events that occur as objects or targets of research. Population is a generalization area consisting of objects / subjects that have a certain quantity and characteristics set by the researcher to be studied and then drawn conclusions (Sugiyono, 2013). The population in this study was all ship owners who were inundated by PT. Bahari Eka Nusantara Sangkulirang Branch – East Kalimantan as many as 26 companies. The sample is part of the number and characteristics possessed by that population. If the population is large and researchers are unlikely to study everything in the population, they can use samples taken from that population (Sugiyono, 2014: 149). The sample design used by the researcher was saturated sampling, where all members of the population were used as samples. This is often done when the population is relatively small. Another term for saturated samples is census (Sugiyono, 2014: 156). So that the samples used in the preparation of this thesis are all ship owners who are inundated by PT. Bahari Eka Nusantara Sangkulirang Branch-East Kalimantan as many as 26 companies.

## RESULT AND DISCUSSION

### Instrument Test

#### Test of Validity

This validity test is used to determine the level of validity of a questionnaire used in data collection. The questionnaire is said to be valid if the questions on the questionnaire are able to reveal something that the questionnaire will measure (Ghozali, 2013:52). A significant test was carried out by comparing the calculated r value with the table r for degree of freedom (df) = n-2, in this case it is the number of samples. The number of samples (n) in this study was

26, so the magnitude of df was  $26-2 = 24$ , with a significance level of 5%. A statement is declared valid if the calculated value of r which is the corrected value of the item-total correlation (in spss 25) is greater than that of r of the table . In this case, the table r is 0.388. If the result of the r hitung is greater than the r of the table, then the data is said to be valid.

**Table 1**  
**Item Validity**

No.	Variable	Number of Items	Valid Item	Ket
1	Manual system clearance in and out (X)	10	10	Valid
2	Service of the ship being boarded (Y)	10	10	Valid

### Reliability Test

The reliability test aims to determine if the data collection tool basically shows the accuracy, accuracy of stability, or consistency of the tool in revealing certain symptoms of a group of individuals, even though it is carried out at different times. In determining the level of reliability of a research instrument, in general reliability in the range of  $> 0.06$  to  $0.80$  is good, as well as in the range of  $> 0.80$  to  $1.00$  is considered very good (Santoso, 2001: 227). To determine the reliability of variable question items, testing was carried out with the SPSS 25.00 program computer with the formula Cronboach's Alpha.

**Table 2**  
**Reliability Test Results**

No.	Variable	Cronbach's Alpha	Tot.
1	Manual system clearance in and out (X)	0.670	Reliable
2	Service of the ship being boarded (Y)	0.637	Reliable

Source: SPSS data, processed in 2022

### Data Analysis

#### Correlation Coefficient Analysis

From the results of the analysis, a correlation value of 0.732 was obtained. This shows that there is a significant positive relationship between the manual clearance in and out system to the service of the vessels being agentized. The value of r 0.732 is ranked 0.60 - 0.799 meaning that this indicates that there is a strong relationship between the manual clearance in and out (X) system to the service of the vessel being agentized (Y).

### Simple Linear Regression Analysis

Based on the results of the calculations carried out, a of 9.773 and b of 0.693 forms of simple linear regression equations were obtained as follows:

$$Y = 9.773 + 0.693X$$

Based on the equation above, it can be known that the constant value is 9.773 mathematically, the value of this constant states that the consistent value of the manual system variable clearance in and out (X) is 9.773. The regression coefficient X is 0.693 which states that every addition of 1% of the manual clearance system in and out (X), the service value of the agentd ship (Y) will increase by 0.693. The regression coefficient is positive, so it can be said that the direction of influence of variable X on variable Y is positive.

### Hypothesis Test

#### T Test

Based on the results of the analysis, it can be known that the sig value for the influence of the manual clearance in and out (X) system on the service of the vessels in the agentd (Y) is  $0.006 < 0.05$  and the calculated value is  $5.261 > 2.064$  so that it can be concluded that the hypothesis is accepted because there is a positive influence of the manual clearance in and out system on the service of the ship being agentd.

### Coefficient of Determination

By involving the results of the calculation above where the R square is 0.536 or 53.6%. This indicates the magnitude of the influence of the manual clearance in and out system on the service of the vessels being agentd by 53.6% while the remaining 46.4% is another factor.

### Discussion

From the calculation above, a correlation coefficient of 0.732 was obtained, this means that there is a strong influence between the manual clearance in and out (X) system on the service of the ship being agentd (Y).

Based on the results of the calculations carried out, a simple linear regression equation is obtained as follows:

$$Y = 9.773 + 0.693X$$

From the regression equation, it can be seen that the manual clearance in and out system for the service of the agentd ship is 0.693 which means that every addition of 1% of the manual clearance in and out system (X), the service value of the ship being agentd (Y) will increase by 0.693. So that with the increase in indicators in the manual clearance system in and out, it will also increase the service of ships that are agentd. Therefore, efforts to improve the manual clearance in and out system are carried out by increasing the indicators of the manual clearance in and out system.

### CONCLUSION

Based on the analysis of the research results that have been presented in the previous chapter, conclusions can be drawn, namely: Based on the results of the correlation coefficient, the author obtained the result that the correlation between the variables of the manual clearance system in and out (X) and the variable of ship service in the agentd (Y) has a strong influence, which is at an interval of 0.600–0.799, so it can be concluded that there is a strong collision between the variable (X) and the variable (Y) which affects the service of ships agentd by PT. Bahari Eka Nusantara Sangkulirang Branch, East Kalimantan. Based on the coefficient of determination analysis carried out, it can be said that the influence between the variables of the

manual clearance system in and out can affect the variables of ship service that are agentized in the process of clearance in and out of the ship agency at PT. Bahari Eka Nusantara Sangkulirang Branch, East Kalimantan by 53.6%, so it can be concluded that the magnitude of the influence of variable (X) on variable (Y) is 53.6%, which can affect the service of ships agented by PT. Bahari Eka Nusantara Sangkulirang Branch, East Kalimantan.

## **BIBLIOGRAPHY**

- Amiyani, R. (2016). Sampling Techniques. UNY.
- Hermansyah, W. (2014). Clearance.  
<https://sites.google.com/site/vioceofearth/Home/kebijakkan-transportasi/kepelabuhanan/clearancein>
- Lasse. (2014). Port Management. Jakarta Rajawali Press.
- Moenir. (2016). Public Service Management in Indonesia. Sinar Grafika Offset, Jakarta.
- Regulation of the Minister of Transportation No. PM 82 of 2014
- Regulation of the Minister of Transportation No. PM 157 of 2015
- Santosa, B. (2015). Agency. Ghalia Indonesia, Bogor.
- Sugiyono. (2013). Quantitative, Qualitative and R&D. Alfabeta Research Methodology, Bandung.
- Sugiyono. (2014). Educational Research Methods Quantitative, Qualitative, and R&D Approaches. Alfabeta, Bandung.
- Sugiyono. (2015). Educational Research Methods. Bandung. Educational Research Methods (Quantitative, Qualitative, And R&D Approaches).
- Sugiyono. (2017). Quantitative, Qualitative, and R&D Research Methods. Alfabeta, Bandung.
- Sugiyono. (2018). Quantitative Research Methods. Alfabeta, Bandung.
- Sujarweni, V. W. (2014). Research Methods: Complete, Practical, and Easy to Understand. Pustaka Baru Press, Yogyakarta.
- Sujarweni, V. W. (2015). Business And Economic Research Methodology. Pustaka Baru Press, Yogyakarta.
- Constitution of the Republic of Indonesia Law of the Republic of Indonesia No. 17 of 2008. (2008). Sailing.
- Widiyanti, E., & Ridwan. (2014). Dictionary of Port and Sailing. Pt. Leutika Nouvalitera, Yogyakarta.