

## Analysis of the Inaportnet System that Affects the Ship Service of PT Kartika Samudra Adijaya at the Port of Samarinda

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| KEYWORDS                      | ABSTRACT   |
|-------------------------------|--|
| System; Influential; Service. | This study aims to determine the implementation of the inaportnet system that affects ship services at PT Kartika Samudra Adijaya at Samarinda Port. The method used in this study is qualitative with a descriptive approach. Data analysis is a qualitative approach to primary data through observation, documentation and secondary data in statutory studies, books or literature related to vehicle loading systems on board. Based on research on the preparation of ship arrival, during the ship's arrival in the port area, preparation for ship departure, and when the ship departs, It can be concluded that the new inaportnet system was only implemented in October 2022. In adjusting to the new system, several obstacles are still found, such as the lack of guidance of KSOP officers in using the new system and the lack of socialisation from the city authorities to service users (agents). The efforts include holding regular training sessions on the flow of the internet system for officers and service users. |

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### Introduction

Indonesia consisted of 2,439 ports in 2020. Samarinda Port is a port on the Mahakam River in East Kalimantan, covering an area of 211,440 km<sup>2</sup> (MOH, 2021). It is a central Indonesian province with excellent natural resource potential, including Petroleum, natural gas, coal from mining, wood and rattan from forest products, and palm oil from plantations (Tandung et al., 2022). This condition makes Samarinda Port a very dominant city, and it not only acts as a terminal and entrance for the flow of goods, passengers, and animals but also supports and accelerates economic growth in East Kalimantan (Malisan & Tresnawati, 2019).

Samarinda Port is located 30 miles from Muara Pegah. Muara Pegah is the estuary where ships heading to the port of Samarinda dock. From this estuary, the ship must be directed to the port area of Samarinda (Siti et al., 2023). The existence of this port is vital because it meets the basic needs of Samarinda and its surroundings (KACUNG, 2017). Ships operating between islands load and unload cargo here. Seeing the city's rapid development of Samarinda, this port cannot be developed further. Therefore, it must be converted into a new port with facilities to accommodate large ships' loading and unloading needs and a particular terminal for container storage. Samarinda Port focuses on passenger ship services and the loading and unloading coal and palm shells. The development of transportation, which is increasingly advanced in its current form, requires sea transportation to be at the forefront (Nursanthy et al., 2018). Therefore, many participants tried their best to provide the best service for the smooth operation of ships at the port dock, for example, implementing the inaportnet system at the port of Samarinda.

Inaportnet is an internet/web service system that integrates standard port information systems in serving physical goods from all agencies and related stakeholders at ports (Indonesia, 2016). This is needed because developing countries face many challenges in delivery services (Lon, 2020). Service technology is essential for economic and social construction (Aini et al., 2021).

Based on observations in the field, researchers found problems in the inaportnet system that are not optimal caused by internal factors such as system maintenance or a system repair at certain hours can hamper the port clearance process, the ability of human resources who are not competent in operating, so that the application of inaportnet is not optimal for service users, because the services provided are still limited which results in service satisfaction, This is an important point so that service users do not find it challenging to use port services, considering that smooth port activities are essential for the convenience of service users and are expected to no more prolonged cause problems.

Previous research by (AGUNG TRI, 2023) entitled Application of Indonesia Port Integration System (Inaportnet) in Bulk Vessel Services by PT. Indo Dharma Transport at Syahbandar Office. This research method uses descriptive qualitative data collection techniques from observation, documentation, and interviews with the Operational Section of PT. Indo

Dharma Transport Samarinda branch and KSOP class II Samarinda marine traffic section officer and literature study. Research results in improving the Clearance in/out process are often hampered due to expired ship certificates, lack of training and socialisation about using Inaportnet, and weak internet network connection (Luturmas et al., 2022).

Based on the formulation of the problem, the author can formulate the benefits of research that will result from this research, so the purpose of this study is to find out the constraints in the ongoing Inaportnet System at PT Kartika Samudra Adijaya Ship Service at Samarinda Port.

Every activity has benefits, as well as conducting research. So, based on the research objectives that have been stated, the benefits of this study are as follows:

1. Theoretical benefits

Can add information and knowledge about the influence of the inaportnet system on ship services at PT Kartika Samudra Adijaya at Samarinda Port.

2. Benefits in practical terms

This material can be considered to improve the quality of ship services, especially ship agency services.

## **Research Methods**

The research method is used to scientifically discover, develop, and test the truth of science. In this context, the author uses qualitative research methods that involve variables of information, opinion, and observation found during the research process. The data collected using qualitative research methods are in words and pictures, not numbers. This data can be obtained through interviews, field notes, photographs, video recordings, personal documentation, notes, memos, and various other forms of documentation (Lexy, 2013).

### **Data Collection Techniques**

The data collection technique carried out is by using observation, where researchers participate in the work carried out by the company where the researcher is observing or used as a source of research data, namely at PT Kartika Samudra Adijaya Site Samarinda by requesting reports - reports on ship arrivals and departures, Daily Report Ships, Total Cargo loaded.

During the observation, the researcher also interviewed employees who worked there. The purpose of the interview is that in addition to getting more open data, researchers can also better know exactly how PT Kartika Samudra Adijaya, Kalimantan, and Samarinda carry out ship arrival and departure services at Samarinda Port. Data sources in this study are categorised into Primary Data, which is data taken directly by researchers to informants without intermediaries or liaisons (Morissan, 2019). Informants in the Inaportnet System Analysis research that affects PT Kartika Samudra Adijaya's ship services at Samarinda Port are employees who are directly involved in the work contained in PT Kartika Samudra Adijaya. The critical informant is the supervisor of PT Kartika Samudra Adijaya.

Secondary data has been available in various forms (Morissan, 2019). Secondary data in this study are books and journals and documentation in the form of regulations and policies related to ship arrival and departure services, as well as photos of activities in ship arrival and departure services that can be used as data support in research.

### **Data Analysis Techniques**

Data analysis activities are vital in answering problem formulations and concluding research results. In data analysis, a researcher must have accuracy and a critical attitude. It is essential to interpret the data accurately and get valid conclusions in research (Zuriah, 2009). In writing this scientific paper, researchers use data analysis techniques in three ways: data reduction, data display, and conclusion (Sugiyono, 2018). Data reduction means choosing the main thing and focusing on the critical thing that aims to facilitate research data analysis. After reducing the data, the next step is to present the data. The data itself can be presented in tables, diagrams, or graphs. The next stage in

conducting data analysis is drawing conclusions and verification. The conclusions obtained are still temporary as long as researchers have not found valid and consistent evidence against the data. However, if the researcher is sure that the data obtained is valid, then the conclusions can be accounted for.

## **Results and Discussions**

In data analysis of written applied scientific papers, the author uses a qualitative descriptive method, where the author conducts research and gets descriptive data in oral and written form from the actors and the observed surrounding conditions. When the author carried out land practice (PRADA) at PT Kartika Samudra Adijaya for 12 months, precisely on September 18, 2022 – September 30, 2023, when employees and writers (cadets) carried out about the Inaportnet System that Affects PT Kartika Samudra Adijaya's ship services at Samarinda Port. Researchers observed how the inaportnet system was consolidated, and they collaborated with stakeholders in Samarinda Port.

### **Ship Services on Inaportnet System at Samarinda Port**

The author concludes from the interview results, and an appendix of the interview results is attached. Implementing the inaportnet system has been running well and facilitates ship arrival and departure services. This system can reduce direct interaction with officers / and come directly to the local Kesyahbandaran, simplify service, shorten time, faster service, reduce operational costs, and many others. Several obstacles arise in implementing the new inaportnet system, for example, human error and the system sometimes being down due to many service users accessing simultaneously. So, the inaportnet ship service system has been running well; from the service user side, expect an even better increase in ship services, especially for the city service officers, so that more socialisation activities are held in implementing the inaportnet system. (Rosalinda Thersia interview:2022)

From the author's interview with Mr Adib Akbar Al Jaelani, the head of operations of PT Kartika Samudra Adijaya Samarinda, the role of agents in ship services is divided into four stages, namely:

1. Preparation for the arrival of the ship.
2. As long as the ship is in the port area.
3. Preparation of ship departure.
4. When the ship departs.

### **Various factors affect the smooth running of ship services in the Inaportnet system at Samarinda Port.**

The inaportnet web-based ship service system makes it easier for service users (agents) to prepare clearance out and clearance in the ship. The following are the results of the author's observations obtained when carrying out the research. In implementing the inaportnet system, some obstacles arise, such as expired or expired documents not being uploaded for the clearance process in the ship on the inaportnet system. The internet network is inadequate, and officers do not thoroughly understand the internet system. Supporting factors for the ongoing inaportnet system include minimising errors in large and many ship documents because every step has been recorded.

The Role of PT Kartika Samudra Adijaya Samarinda in National Ship Services at Samarinda Port. From the author's interview with Mr Adib Akbar Al Jaelani, the head of operations of PT Kartika Samudra Adijaya Samarinda, the role of agents in ship services is divided into four stages, namely:

1. Preparation for the arrival of the ship

Memberikan info mengenai Estimated Time Arrival (ETA), ship in particular, cargo manifest.

2. As long as the ship is in the port area.

Prepare the original documents of the ship for inspection and clearance in the ship.

3. Preparation of ship departure.

Prepare all the documents that must be cleared out to obtain permission to exit the Port area.

4. When the ship departs.

Prepare Bill of Lading documents (proof of ownership of goods) to be sent to shippers.

**Author's Observations**

The author's observations regarding the arrival of ships in implementing the inaportnet system have obstacles that arise, such as expired documents not being uploaded for the ship's clearance process on the inaportnet system. The internet connection network is sometimes inadequate, and officers who do not understand thoroughly the inaportnet system. Supporting factors for the ongoing inaportnet system include minimising errors in large and many ship documents because every step has been recorded.

PT Kartika Samudra Adijaya Established in 1994, PT Kartika Samudra Adijaya is a family-owned company specialising in providing one-stop logistics and transshipment solutions, especially for coal mining companies. Within 25 years of operation in the Tug and Barge industry, with a total fleet of 210 Tug and Barge and six floating cranes.

The ship service process at PT Kartika Samudra Adijaya Samarinda at Samarinda Port is related to the smooth service of ships. The process of ship service performance at PT Kartika Samudra Adijaya Samarinda at Samarinda Port has been running well. However, some problems have still been found in implementing the new inaportnet system. Some officers do not understand the flow of the inaportnet system, thus hampering clearance of services carried out on the inaportnet portal. The lack of server bandwidth on the inaportnet portal causes the server to be overloaded and cannot be accessed when many service users are accessing simultaneously.

In ship services using the Inaportnet system, there are several obstacles. However, in its application, efforts are made so that services using the Inaportnet system can run smoothly by the Minister of Transportation Regulation No. 157 of 2015 concerning the application of Inaportnet for ship and goods services at the port.

**Implementation of an inaportnet system in Samarinda Port**

Implementing Inaportnet at Samarinda Port is based on the Minister of Transportation Regulation Number PM. 154 of 2015 concerning Online Syahbandar Approval Letter (SPS) at ports and Minister of Transportation Regulation Number PM. 8 of 2022 concerning Ship Service Procedures Through Inaportnet is a replacement for the Minister of Transportation Regulation Number PM. 192 of 2015 Amendments to the Regulation of the Minister of Transportation Number PM. 157 of 2015 concerning the Implementation of Inaportnet for ship and goods services at ports, which aims to improve service and smooth flow of goods at ports, cut service time to be faster and more efficient, reduce logistics costs and as a measure of transparency of services at ports.

Therefore, it is necessary to have comprehensive socialisation by involving related parties such as UPT Directorate General Hubla and related stakeholders, including Samarinda Main Port Authority, Samarinda Class I Disnav, Samarinda City and Port Authority Office (KSOP) Class II Samarinda, PT. Pelabuhan Indonesia IV Samarinda,

TPM, MNP and Shipping Agents who have implemented the Inaportnet system so that it can be a refresher in implementing the entire process of shipping and goods services using the Inaportnet system consistently. Through the socialisation of Ministerial Regulation No. 8 of 2022 concerning ship service procedures through portnet, it is hoped that service users will be able to adjust to current conditions and receive the benefits of implementing provisions so that services are more effective, efficient and transparent to business actors in the maritime sector. The process of applying for an entry and exit ship permit at a port called Port Clearance is divided into two parts, namely:

a. Clearance In ship process using inaportnet system

The clearance is a permit application process when the ship arrives until the ship docks moored to the port.

b. The ship's Clearance Out process uses the inaportnet system.

Based on the regulation of the Director General of Sea Transportation Number HK.103/3/II/DJPL/-15 concerning procedures for ship and goods services using the inaportnet system at ports. Here are the steps of ship agents in the ship Clearance Out process using the inaportnet system

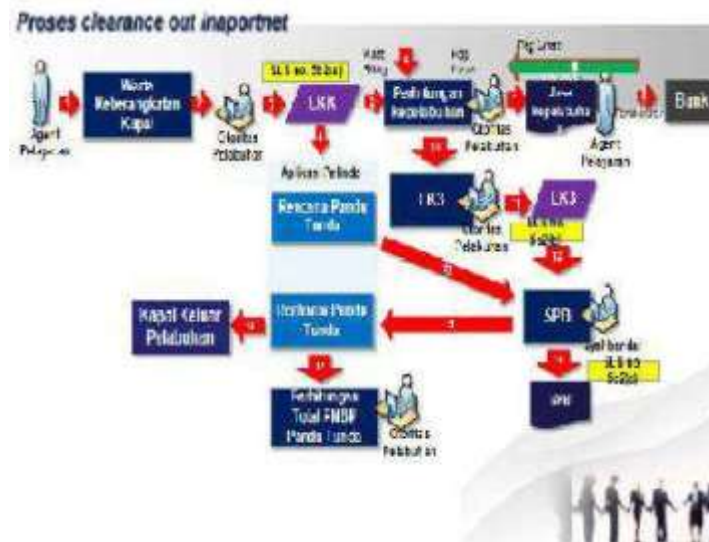


Figure 1  
Clearance Out Process

**Supporting pillars in implementing an independent system**

In order for the inaportnet system to run correctly, port service users running the inaportnet system already have permissions and certificates issued by related parties:

1. SIMLALA (Sea Transport Traffic Management Information System) is an online system operated by the Directorate General of Sea Transportation, Ministry of Transportation, which issues SIUPAL (Sea Transportation Company Business License) / SIOPSUS (Special Sea Transportation Company Operating License) and ship route permit issuer (RPK, PKKA, and PPKN / LN Deviation)
2. SIMKAPAL and SIMPELAUT is an online system operated by the Directorate of Shipping and Marine Affairs, Directorate General of Sea Transportation, Ministry of Transportation, which collects data and issuances ship registration marks and seafarer databases.

3. SIMKEPEL is an online system operated by the Directorate of Ports, Directorate General of Sea Transportation of the Ministry of Transportation, which collects ports according to UN / LOCODE. UN/ LOCODE is a UN-recognized trade and port location code.
4. SIMPONI (PNBP Online Information System) services that are no less important also belong to the Ministry of Finance, which is integrated into the inaportnet system; the PNBP online information system (SIMPONI), which is a billing system managed by the Directorate General of Budget of the Ministry of Finance of the Republic of Indonesia to facilitate PNBP payments/deposits and non-budget receipts. SIMPONI makes it easy for payers/depositors to pay / deposit PNBP and non-budget receipts through various payment channels such as tellers (Over The Counter), ATMs (Automatic Teller Machine), EDC (Electronic Data Capture) and internet banking.
5. Documents are required to apply the Inaportnet System to the Port clearance process.

After the inaportnet system is officially implemented, all documents that must be attached to complete the requirements for clearance in and out can be attached online as a softcopy. All files are uploaded using the form available in the inaportnet system. The documents are:

- a. Last Port Clearance
- b. Ship Operation Plan
- c. Ship Arrival Notification
- d. Designation of the ship's flagship
- e. Ship and freight service notice
- f. Port entry ship approval letter
- g. Safe Manning
- h. Master sailing declaration
- i. Port healthy quarantine
- j. Ship departure report
- k. Sailing approval letter, etc.



**Figure 2**  
**The process of using Inaportnet by PT. JSM agents**

### **Problems that arise**

During the ship's service activities, the author identified several problems in the Inaportnet system. Based on an oral interview with the Head of Operations of PT. Kartika Samudra Adijaya Site Samarinda, some problems that arise come from external factors of PT Kartika Samudra Adijaya Samarinda, among others:

1. Expired documents cannot be uploaded for the shipboard clearance process on the inaportnet system.
2. In the Inaportnet system, there are problems caused by the lack of skills of officers in operating the system. The Inaportnet system is designed to make it easier for shipping, loading, and unloading service users to apply for ship clearance services and loading and unloading activities online, so there is no need to come directly to the authorities. However, researchers found that some officers are still not proficient in operating the Inaportnet system, causing delays in ship clearance and clearance out services.
3. Socialization of the implementation of the inaportnet system
4. The author finds that there is still a lack of socialisation in the inaportnet system. Please note that Inaportnet was only implemented at Samarinda Port in October 2022; the lack of socialisation from officers to agents makes it difficult for agents to operate the Inaportnet system.

### **Kendala system Inaportnet**

The use of an inaportnet system in ship services still has obstacles, including:

#### **a. Information Security Aspects**

There are advantages and disadvantages to using the Inaportnet system. However, all solutions must be found so vessel operations are not disrupted in managing port clearance and achieve greater impact. The first step must be to secure information on inaportnet application data, starting from securing the information itself, both physical and virtual environments, securing hardware and software, and sharing access rights to protect network data and layers. According to John R. Vacca, the three fundamental aspects of information security are integrity, namely the application of several technologies such as strong encryption, authentication and validation, restriction and sharing of clear access controls. The second point is availability, which ensures disaster recovery, single-power backup, RAID (Redundant Array of Independent Disks) and data backup. The third point is confidentiality, which is guaranteed by data transfer encryption and password strength.

#### **b. Gangguan Server**

During the delivery of the port clearance process through the Inaportnet system, sometimes there is a failure or malfunction of the system server, which causes delays in sending permits in and out of ships and, consequently, delays in ship arrival and docking. Ships enter the port, and constant delays in loading and unloading or ships leaving the port. If there is a disruption to the Inaportnet server, uploading ship or crew documents cannot be done. This will cause delays in filing a Sailing Approval Letter (SPB) and impact delays in ship departures, leading to a buildup of ships wishing to carry out similar activities. Server operational and maintenance/financial costs are high, so additional operational budgets are required.

Steps that can be taken before the disruption is corrected are Shipping Companies or Shipping Agents (AP) immediately report server disturbances to the Port and Port Authority Office (KSOP) section of the Directorate of Traffic and Sea Transportation (DITLALA) so that they are immediately handled and repaired. This allows the Port



Clearance application process to be done manually. If the Inaportnet server is not yet functioning, Syahbandar must provide tolerance by publishing minutes and providing information to AP about the attached documents needed to complete Port Clearance manually. This step aims to ensure that the process of applying for berthing permits, ship processing permits, and SPB can be completed with manual assistance from Syahbandar so as not to hamper ship activities.

#### **Efforts made so that ship services run smoothly**

In implementing Inaportnet so that ship services can run smoothly by the Regulation of the Minister of Transportation No. 157 of 2015 concerning the application of Inaportnet for ship and goods services at ports, the following steps need to be taken:

1. To overcome expired documents that cannot be uploaded to the inaportnet system, namely by extending expired documents first so that problems do not arise that can hinder the clearance process.
2. Training on the flow of the inaportnet system is held regularly so that officers and service users understand each flow in the inaportnet system
3. Adequate Information Technology Infrastructure: Ensure the availability of adequate information technology infrastructure, including a stable and fast internet network, necessary hardware and software, and a reliable security system. This is important so that the Inaportnet system can run effectively and efficiently.
4. User Training and Competency Improvement: Train Inaportnet system users, port officers, ship agents, and other related parties. This training aims to ensure that system users understand the system's functionality and how to operate it correctly.
5. System Monitoring and Evaluation: Conduct regular monitoring and evaluation of the performance of the Inaportnet system, including collecting feedback from users about the advantages and disadvantages of the system. Thus, problems can be identified when they arise, and appropriate corrective actions can be taken to improve ship service.

#### **Conclusion**

Based on the results of research and discussions carried out by the author during practice at PT. Kartika Samudra Adijaya, it can be concluded that the supporting factors for the implementation of the inaportnet system, such as minimising errors in large and many ship documents, because every process has been recorded in the system database and supporting factors that affect the continuity of the Inaportnet System at PT Kartika Samudra Adijaya Ship Services at Samarinda Port, namely from the service sub-menu in the inaportnet system which is related to the required documents, Also, a transparent flow can be monitored anytime, by anyone and anywhere by the interests of the position of its staff in serving customers can also be tracked directly to regulate ship services according to the purpose of updating Inaportnet system services, in addition to supporting there are also perceived problems, namely server bandwidth which sometimes causes slow systems to process document uploads because many parties need access to the Inaportnet system.

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