

SUMMARY

ERI SEPTYAWARDANI. Evaluation of Trial Stevedoring with Cosmos System at PT. XYZ. Supervised by SYAMSUL MAARIF and JOKO AFFANDI.

Container port is one special type of port that serves the shipping logistics that have been packaged in a container. The existence of the port, in particular, a container port, is very important for economic development in the region, even to the country. There are three main components in the framework of the process of stevedoring that should be kept interactions, namely: input, process, and output. In a container port, input is the arrival of container ships and the arrival container itself. The input process is in the form of services to ships and process of container stevedoring. While the output is the number of containers transported.

The process of container stevedoring has an indicator that serves to measure productivity as well as indicators of container service quality. In general, the service quality of container is measured to know how long the process of stevedoring is carried out. Faster implementation of stevedoring will make the shipping part be more satisfied. The performance of the port operators and also stevedoring equipment is a major factor in the process of stevedoring. Unloading operations prioritize operator working position because of the speed of stevedoring cranes (stevedoring equipment) entirely within the control of the operator. With the burden and risk of heavy work, the operator is required to always optimally and minimize errors in each job.

PT XYZ is a world-class container terminal company in cooperation with an international port manager. The container terminal is a major project of Indonesia Port Corporation (IPC II) to realize the construction of an international port in Indonesia. Equipped with a capacity of 4.5 million TEUs, (twenty-foot equivalent unit) to enable the Triple E class container ships passing through Indonesia without transshipment at other ports. Until now Triple-E ship is the largest class of container ships with a carrying capacity of up to 12,000-15,000 TEUs. Amenities of existing port terminal at the Port of Tanjung Priok only serve vessels with a maximum capacity of 6,000 TEUs, while the growing trend of the use of container ships in the world to use vessels with a capacity of > 10,000 TEUs in order to reduce logistics costs per TEU, so as to serve aboard Direct Call with large size must be prepared adequate facilities. Due to the high activity of stevedoring hence careful planning is needed through three operational experiments (simulation) of stevedoring at PT XYZ before operational execution begins officially.

The study used the quantitative approach with descriptive and comparative design. Total sample obtained was as many as 15 operators. Data processing technique included sign test, ANOVA test, interviews with respondents and cross tab to obtain the condition of respondent (operator) characteristics in relation to the impact of loading and unloading operations experiment perceived by respondent (operator).

Based on the objectives, this study succeeded in analyzing differences from the three trials of loading and unloading operations conducted at PT XYZ. There is significant difference found among the three trials performed. The

average box obtained was only 11 boxes per hour in May, 17 boxes per hour in July and 20 boxes per hour in August. However, the average number of the box per hour was still below the target set by the company those were 27-30 boxes per hour. Whereas PT XYZ has been using the system on the loading and unloading process, the Terminal Operating System, called COSMOS. This result contradicted the expected finding since by implementing the system, the operator in the field can immediately know the exact location of containers concerning the properties and delivery schedule of the container, thus loading and unloading time will be shorter.

Therefore, managerial implication formulated to meet the target set by the company namely performing the further experiment by considering any operational mistakes found in the existing loading and unloading trial and better control on equipment used. Moreover, characteristics of the operator, including age, the level of education and work experience are not needed to be taken into account in the further operational process since the follow-up trial requires considerable training thus operator will be able to control system better.

Keywords: stevedoring trial, TOS, trial evaluation

