COMPARATIVE ANALYSIS OF SHIPPING COST/TON USING TIME CHARTER SYSTEM AND VOYAGE CHARTER SYSTEM FOR BULK CEMENT DELIVERY

Name: Hendy Ginanjar Sasmito
Registration Number: 2510100023
Supervisor: Prof. Ir. I Nyoman Pujawan, M. Eng., Ph.D, CSCP

ABSTRACT

Indonesian cement demand increase require a cement company can distribute its products throughout Indonesia. The largest Indonesian cement company should distribute cement using sea transportation. The process of distribution of cements by using sea transportation has different delivery cycles with the distribution of cement by using ground transportation. One of the biggest cement subsidiary in Indonesia, located on TBN has the primary task of distributing cement factory packing plant TBN towards CWD and BWI. Delivery process existing condition very long ranged between 10.5 days to 13.3 days from TBN headed to BWI and TBN towards CWD. Boat charter system that used the company on the existing condition is time charter system, so that the cost of transporting cement becomes very high. In this study was developed by considering the scenario cement delivery system charter. There are 2 scenarios developed in this research that scenario 1 represents a condition in which the cement delivery system used for the delivery voyage charter system charter. Scenario 2 represent conditions in which the cement delivery system used combination of time charter and voyage charter. For current conditions scenario 2 produces the minimum shipping cost when compared with the other scenario 2. Based on the sensitivity analysis, it can be concluded that if the average cycle time of delivery to the CWD and BWI TBN ranging from less than 5 days, the time charter system produces a minimum shipping fee. When the average cycle time ranges from 5 to 13 days, then the combination charter system generates a minimum shipping costs, when the cycle time is more than 13 days.