Evaluation of Queuing Characteristics of Cargo Ships at Manila International Container Terminal

A Thesis Study Presented to
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Abstract

The study demonstrates the application of queuing theory in determining the traffic intensity at the port at Manila International Container Terminal (MICT). The study shows a detailed computation of the queue parameters of the cargo ships at the port including the arrival rates of the cargo ships, the average service time of each berth at the port, the utilization factor of the port, queuing parameters and traffic growth rate at the port. The study also provides a tabulated list of the number of ship calls from June 2012 to June 2013, random value of berth service time, and the yearly ship from the 2008-2012 based on the data gathered from the office of the International Container Terminal Services Incorporated.

The study also answers if the port at Manila International Container Terminal has enough number of berths to accommodate the volume of incoming and outgoing ships together with its operation's life span. It is essential to know what the queuing characteristic of the port is.

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