Container Terminal Performance in Indonesia Using Data Envelopment Analysis

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Abstract

Further growth of container terminal operators in Indonesia has a varied standardization due to different operators before. Due to the range of ports' sizes, types, and services, comparing container terminals based on performance is challenging. Nevertheless, since a single state-owned enterprise operates most container terminals as of 2021, this work is crucial to enhancing national trade to improve Indonesia's competitiveness in global work. Moreover, container terminal performance is calculated based on their efficiency in managing several aspects divided into three categories based on their throughput in 2020 in the East, Middle, and West of Indonesia. Data envelopment analysis (DEA) using constant return to scale method to examine container terminal performance to perform benchmarking among all container terminal operators. The findings in this paper identify the benchmark performance for container terminals in each category and the needed output for underperforming container terminal operators to increase their efficiency performance in each aspect.

Keywords
Port, Performance, Indonesia, Data Envelopment Analysis, Container

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