Empty Container Decision Support System using Sensitivity Analysis

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Abstract

Due to the economic growth of the world, movement of container cargoes has been remarkably increasing. Because of this increasing, the regional difference between demand and supply has also exacerbated. It occurs the imbalance of container movement that makes inefficiency of using container resources. To improve the utilization of container resources, empty container repositioning is suggested. Many researches were conducted to determine the amount of purchasing, leasing, and repositioning. However, these mathematical models and algorithms did not support the sensitivity analysis of solution. In this paper, we will try to develop heuristics that can support the sensitivity analysis for flexible decision-making.