
Evaluation of expected payoff through container interchange between shipping lines: a solution to container inventory imbalance in Sri Lanka

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Abstract: This paper evaluates the expected economic benefit that could be achieved by interchanging containers between shipping lines by employing the popular game theoretic approach. It comprehensively discusses the causes underlying the container inventory imbalance; the absence of collaboration (work alone) with respect to containers; the models of collaboration (win-win situation); and the quantitative and qualitative benefits that could be achieved through shipping alliances. This paper suggests barriers to a collaborative approach by carriers as confidentiality of information; regulatory, competition and social issues; and business philosophy of firms. This paper identifies the core areas relevant to empty maritime container inventory imbalance including external trade volumes, commodity types, logistical issues, seasonality, container types and sizes. The ultimate objective is to ascertain the appropriateness of collaboration as a solution to container inventory imbalance in Sri Lanka. Therefore, attempts were made to calculate economic benefits of