

## Mitigating the Cost of Empty Container Repositioning through the Virtual Container Yard: An Appraisal of Carriers' Perceptions

**Authors :** L. Edirisinghe, Z. Jin, A. W. Wijeratne, R. Mudunkotuwa

**Abstract :** Empty container repositioning is a fundamental problem faced by the shipping industry. The virtual container yard is a novel strategy underpinning the container interchange between carriers that could substantially reduce this ever-increasing shipping cost. This paper evaluates the shipping industry perception of the virtual container yard using chi-square tests. It examines if the carriers perceive that the selected independent variables, namely culture, organization, decision, marketing, attitudes, legal, independent, complexity, and stakeholders of carriers, impact the efficiency and benefits of the virtual container yard. There are two major findings of the research. Firstly, carriers view that complexity, attitudes, and stakeholders may impact the effectiveness of container interchange and may influence the perceived benefits of the virtual container yard. Secondly, the three factors of legal, organization, and decision influence only the perceived benefits of the virtual container yard. Accordingly, the implementation of the virtual container yard will be influenced by six key factors, namely complexity, attitudes, stakeholders, legal, organization and decision. Since the virtual container yard could reduce overall shipping costs, it is vital to examine the carriers' perception of this concept.

**Keywords :** virtual container yard, imbalance, management, inventory

**Conference Title :** ICMTCPPE 2019 : International Conference on Maritime Transport Costs and Port Efficiency

**Conference Location :** Tokyo, Japan

**Conference Dates :** April 22-23, 2019