



## Assessment of Strategies that Lead to Optimization of Effective Container Inventory Management in Sri Lanka

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### **Abstract**

Container carriers exercise various inhouse methods to optimize the utilization of container inventories. However, at present, there is no commonly accepted container inventory management system or standard mechanism to minimize the idle time of empty containers at storage. Also, there is very few literatures available suggesting that no scientific researches have been conducted about this matter. One of the most popular practice by carriers is the repositioning of empty containers from the idle location to other locations where they are in demand. The objective of this paper is to evaluate various container inventory management mechanisms individually exercised by carriers. The researchers have administered qualitative and quantitative methods to collect data. Fifteen representatives from shipping lines, and shipping associations have been interviewed. A questionnaire survey was conducted using hundred and twenty employees in shipping agency offices. Data published by the Central Bank of Sri Lanka, Sri Lanka Ports Authority, and Ceylon Association of Shipping Agents have been referred. The data was analysed using the SPSS statistical tool and arrived at final conclusions. Accordingly, the paper identifies nineteen container inventory management strategies. They stem from four key categories namely, Pricing; Forecasting; Operations; and Customer care. Finally, the paper proposes a new category namely, collaboration. The collaboration in shipping leads to container exchange between carriers that is commonly identified as the Virtual Container Yard. The findings of the research are immense beneficial to the shipping lines and other supply chain management professionals. The recommendations of the paper can be directly implemented by the industry practitioners and reduce the cost associated with

container reposition which in tern reduce the heavy carbon emission due to excessive sea, road and rail transport of containers.

**Keywords:** Shipping,container,inventory,management,optimization