

# **An Exploration of Success Factors for an Effective Inventory Management System in the Sri Lankan Shipping Industry**

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## **Introduction**

The geographical position of Sri Lanka serves as a competitive advantage in becoming a maritime hub in the Asian region. However, regardless of the strategic positioning of the country, the shipping industry of Sri Lanka has gradually eroded over the past years (Edirisinghe & Gunaruwan, 2013). Colombo Port in Sri Lanka is generally considered to be the primary port of South Asia (Rathnayake & Edirisinghe, 2015). Their main task in the shipping industry is inventory handling and transporting (United States of America Patent No. US3386600A, 1968). As shown in the past literature when it comes to the Sri Lankan shipping industry, it is assumed that 22% of the container cost is generated due to the container inventory imbalance (Edirisinghe, Jin, & Wijeratne, 2016). This downside has signified the need to improve the efficiency of shipping operations in Sri Lanka. Accordingly, the purpose of this study is to explore the success factors and barriers of an effective inventory management system for the shipping industry in Sri Lanka.

## **Methodology**

This is a qualitative research and the research design therefore is multiple qualitative case studies. Case study methodology is applied, when there is a lack of literature and to study contemporary phenomenon when the boundaries of the phenomena and the context of the study cannot clearly be demarcated. There is a lack of data, information and statistics available on shipping industry in Sri Lanka (MoDSIT & EDB, 2018). Case Study method helps to explain the difficulties of real-life situations called as contemporary issues, which may not be captured through survey research (Zainal, 2007). The lack of data and statistics available in the shipping industry in Sri Lanka and not being able to separate inventory management practices from its context, which is the shipping organization, case study methodology is the best approach for the chosen study.

Data collection was done through semi-structured interviews and 10 cases were selected as the study was reaching the data saturation point. The interview guide was prepared with the support of available literature. The people responsible for the management of the inventory of the respective companies were chosen as the interviewees. Data triangulation was used in order to check the reliability of data and get feedback from

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different parties in selected companies.

Thematic analysis was carried out to analyze data in transcribed interviews and collected documents. A free coding strategy was used and codes were identified both priori and in-vivo basis.

### **Findings**

This research was carried out to explore the success factors of an effective inventory management system for the shipping industry in Sri Lanka. The findings of the research suggested that the key success factors for an effective inventory management system are the existence of high-quality information systems that are capable of monitoring end-to-end operations, state-of-the-art of equipment for handling, well thought out yard design, proper assignment of storage space, and skilled and experienced operational staff. However, the research also revealed some barriers for achieving effectiveness in inventory management and these are due to lack of management support, political and regulatory influences and inadequate funding frequent damages to containers while in a storage yard, misplacement of cargo containers and delays due to information system errors.

### **Conclusion**

There was a serious gap between the Sri Lankan shipping industry when compared with the shipping industries of South Asian region. The main purpose of this study was to explore the success factors and the barriers affecting to an effective inventory management system in the shipping industry and foster the knowledge gained through academia to the industry to Sri Lankan shipping industry be able to compete in the global business environment.

In addition, this study helps to prevent those barriers and make inventory management systems more effective and efficient through minimizing wastage.

**Keywords:** *Barriers, Inventory Management, Shipping Industry, Success Factors*

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