Chapter 6
A Review on Shipment Tracking Technologies on Game Changers in Maritime Logistics

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ABSTRACT

Shipping services are crucial to product transit, especially with the rise of online commerce. Postal services and package delivery utilize automotive assets and other logistical resources as key operational instruments. However, the shipping business has several operational challenges, including fuel price volatility, complex tax regimes, and growing client bases. These obstacles hinder shipping businesses' operations, potentially causing delays, lost goods, and service disruptions. Operating errors can lead to consumer discontent and, in extreme circumstances, attrition. Integrating cutting-edge technologies may help shipping businesses overcome these issues and improve operational efficiency. One option is to create a robust tracking system. Such a method might significantly reduce resource use and boost client satisfaction. These factors highlight the necessity for academic research in shipping services to advance the area and introduce new solutions to suit commercial demands.

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INTRODUCTION

A company's long-term success hinges on its ability to establish a reliable and efficient supply chain, especially in today's competitive global market. Embracing new technology can reduce cost and loss, improving overall operations (Assiri et al., 2020). Cutting-edge technology is essential to maintain a competitive edge and leverage data for informed decision-making. It also transforms supply chain information management through systems like electronic data interchange, reducing data loss and promoting efficient customer response for better customer communication (Koh et al., 2019).

Shipping companies grapple with many challenges in the domain of package delivery, including issues related to timeliness and order preservation. To effectively confront these formidable hurdles, shipping enterprises must elevate the calibre of their services, thereby achieving both customer satisfaction and a competitive edge within the industry (Mohsen, 2023). Furthermore, they are compelled to realign their strategies in response to the ever-evolving landscape of online commerce and the exponential growth in order volumes, all aiming to expedite deliveries while minimizing errors (Birkel & Müller, 2021).

The contemporary era has witnessed a significant upswing in the evolution of services proffered by shipping companies on a global scale (Grau et al., 2012). Consequently, the imperative of devising and implementing an authoritative shipment tracking system capable of seamlessly operating across diverse networks has gained paramount importance (Núñez-Merino et al., 2020). This research aims to elucidate the impact of digital technologies, widely acknowledged as the primary drivers of progress, and their potential to reduce operational costs and optimize delivery timelines, ultimately achieving the pivotal objective of swift package delivery to end recipients (Silva et al., 2019).

The research revolves around how adopting digital technologies in shipment tracking can smoothen supply chain operations in maritime logistics and explores how it augments the overall business performance by expounding the following research questions (Fournier et al., 2018).

- RQ1. What are the challenges of tracking shipments in maritime logistics?
- RQ2. How can different shipment tracking technologies contribute to improved business performance?

Based on these questions, the research explores the quest for service excellence, where cost and time wield significant influence; this study meticulously examines a pervasive issue that profoundly shapes the efficiency of goods delivery and the formulation of an optimal route for efficiently transporting packages from shipping depots to a designated cohort of customers (Vujanović et al., 2021).

The confluence of a proficient route distribution strategy and a sophisticated tracking system emerges as a potent formula for resource optimization (Ramli et al., 2019). Thus, in harmony with the industry's evolutionary trajectory, this research thoroughly explores the most advantageous digital solutions and technologies (Saberi et al., 2019). It seeks to address challenges related to resource utilization, tracking packages, and mitigating delivery delays. Furthermore, the study delves into how implementing a robust tracking system can serve as a panacea for these challenges, ensuring smoother operations and heightened customer satisfaction (Tziantopoulos et al., 2019).

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