



**CHALLENGES FOR WAREHOUSE DIGITIZATION OF  
SUPERMARKET CHAINS IN SRI LANKA**

**by**

**COL PRIYANTHA DISSANAYAKE RSP USP IG  
(502MSS18028)**

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## ABSTRACT

Warehouse digitization has become imperative for supermarkets to maintain their competitive edge and improve operational efficiency. While warehouses play a crucial intermediate role between supply chain members, affecting both costs and service quality, the digitization of warehouse management in Sri Lanka lags. This study aims to identify the necessity of warehouse digitization in supermarkets, explore existing strategies and technologies, and analyze the challenges faced in the Sri Lankan context. Using a qualitative approach, in-depth interviews were conducted with a sample of 30 participants, including warehouse managers, operational floor workers, and supervisors, selected through snowball sampling. Data analysis involved transcription, familiarization, coding, theme development, data condensation, and interpretation. The findings emphasize the significance of warehouse digitization ineffective warehouse management, revealing that it enhances inventory management, optimizes supply chain processes, and improves decision-making. However, the study also uncovers several challenges in the implementation of digitization strategies within the supermarket sector in Sri Lanka. These challenges include resource constraints, infrastructure limitations, and cultural and regulatory factors. To address these challenges, the research introduces the "Warehouse Digitization Adoption Model (WDAM)," a four-stage mechanism designed to promote industrial opportunity and enhance warehouse digitization in Sri Lanka. The model provides a strategic framework to navigate the identified challenges and maximize the benefits of digitization for the supermarket sector. By offering insights into the necessity, existing practices, and obstacles of warehouse digitization, this study contributes to the understanding of the Sri Lankan supermarket industry's efforts to adapt to technological advancements and maintain their competitive stance in a dynamic market environment.

**Key words:** *Warehouse Management, Warehouse Digitization, Supermarkets in Sri Lanka, Challenges, Strategies*