

Factors Influencing Inventory Management Practices in Economic Center Operations in Sri Lanka with Reference to Dambulla, Meegoda and Keppetipola

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Abstract

This study investigates the impact of inventory management practices on the operation of economic centers in Sri Lanka, focusing specifically on the Dambulla, Meegoda, and Keppetipola. The research is driven by a notable discrepancy between the volume of vegetables produced and the amount effectively distributed through these centers, raising concerns about inefficiencies within the inventory systems. The study examines four key dimensions of inventory management: storage capacity, storage facilities, stock monitoring and control, and automation and technology as independent variables influencing overall inventory performance. A quantitative research approach was adopted, employing a structured questionnaire distributed among 110 respondents involved in inventory-related roles across the selected economic centers. Data analysis was conducted using descriptive statistics, reliability and validity testing, Pearson correlation, and multiple regression analysis via SPSS. The findings reveal strong positive correlations between the independent variables and inventory management practices, except for stock monitoring and control, which showed a weaker association. The results emphasize the significance of adequate storage infrastructure, technological adoption, and efficient capacity utilization in minimizing waste and enhancing distribution efficiency. However, limitations in real-time stock monitoring systems and manual tracking methods continue to undermine inventory accuracy. The study concludes with strategic recommendations to improve inventory practices through digital transformation, capacity planning, and infrastructure development, thereby enhancing the effectiveness of Sri Lanka's economic centers in supporting the agricultural supply chain.

Keywords: inventory management practices, storage facilities, storage capacity, stock monitoring control