

The Impact of Managing Medicine Storage and Distribution Chain on Medicine Shortage: A Simulation Model for Managing Medicine Storage and Distribution in the Egyptian Market

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Abstract

Medicine shortage materialized across the globe as a humanity health problem. Logistics and supply chain, efficiency has not been adopted across pharmaceutical industry as medicine providers. The lack of efficiency in the supply chain, logistics and related activities considered as the second largest expenditure for medicine providers. The supply chain breakdown in the Egyptian medicine market took place due to several factors: Production is not initiated unless with the actual demand. Lack of communication between the distributors and manufacturers regarding; actual sales and demand, which in return affects the production. Imported raw materials increases the lead-time. The increase in number of pharmacies in particular area, which results in scattered distribution of limited stock. This research provides a scientific contribution to solving medicines shortage problems. Which aims at developing a simulation model as a decision support tool for medicines' manufacturers for enhancing the supply chain overall performance. Adding new technology to improve harmony of the logistics and related activities based on strategic boundaries dimensions that are important to practitioners. Increasing the flexibility of quickly responding to shifts in demand based on: Increasing stability in production, measurement of the Stock Keeping Units (SKUs), alignment with global standards, and supply chain partners collaboration.

Keywords

Supply Chain, Storage, Distribution, Simulation Model and Medicine Shortage

Biography

Ahmed Kassem is a senior teaching assistant in The Logistics and Supply Chain Management Department in the College of International Transport and Logistics at the Arab Academy for Science, Technology and Maritime Transport. He earned a Bachelor of Science degree in International Transport and Logistics and a Master of Science degree in Management of International Transport and Logistics from the Arab Academy for Science, Technology and Maritime Transport. Mr. Kassem has an expert knowledge of IT troubleshooting and problem solving with advanced skills in training customers on best use of technology. He has taught courses in Computer Sciences, Logistics Operation Management, e-Logistics, e-Business, Retail Management, Customer Relationship Management, Logistics Information Systems, Information Technology, and Supply Chain Modelling. He designed and implemented a Course Tracking System to track compliance with teaching requirements, course evaluations and educational progress.