

# **Collaborative Logistics in Healthcare. A Case Study of the Supply Chain of Medicines and Medical Devices for Hospitals in Colombia**

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## **Abstract**

This article describes a collaborative logistic model to improve the medicines and medical devices supply chain in hospitals in Colombia using Systemic Thinking methodologies to identify value flows problems. The exploratory study was developed in 3 stages: the supply chain analysis and characterization from producers to patients, the archetypes identification and modeling that impact the collaborative logistic and the further model proposed to improve interactions between network actors, through literature analysis, interviews and validation of supply chain experts.

A result from the bibliographic review is that to achieve collaboration strategies it is necessary to consider three main supply chain attributes: visibility, velocity and variability since current traditional supply chain model and identified archetypes found present multiple failures, which prevent prompt access to medical treatment and visibility throughout the supply chain.

Given the above, we proposed a collaborative logistic systemic model for the supply chain of medicines and medical devices, whose relevant variables are visibility, efficient service and product availability. Considering as fundamental pillars the trust between the parties, the importance of right use and implementation of the norm, and the proper creation of value flows in the processes that characterize the system.

## **Keywords**

Logistics, Collaborative Logistics, Hospital Logistics, Supply Chain, medicines, medical devices.

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## **Biography / Biographies**

**Lina Ordonez** is a fifth-year student of Industrial Engineering at Icesi University in Cali, Colombia. She earned three excellence mentions at San Pio X high school and obtained the best score for La Cumbre (Valle del Cauca) in the Colombian Higher Education Quality Exam back in 2012. She assisted to Georgetown University in Washington DC, USA for an English for Business Course in 2018 and took a course offered by the Inter-American Development Bank (IDB) oriented to entrepreneurship in Science, Technology, Engineering and Mathematics areas in 2019. She has worked as an Industrial Engineering Program assistant monitor at Icesi University and as an assistant class for several subjects as well.

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