### LITERATURE SURVEY

# 1. A Case Study of Inventory Management System for an International Lifestyle Product Retailer in Bolivia

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Conference: Second South American International Conference on Industrial Engineering and

**Operations Management** 

At: Sao Paulo, Brazil

Project: Customer Satisfaction Data Analysis

Effective inventory management influences every aspect of a firm's operations. Inventory management in developing countries is a difficult business process because firms do not use basic inventory control concepts and techniques. Moreover, developing countries are characterized by trade imbalances with developed countries due to process inefficiencies, bureaucracy, communication problems. This leads to longer lead times and supply uncertainty. Consequently, firms attempt to overcome the supply uncertainty by carrying unnecessary amounts of buffer stocks. We analysed the inventory management system of an international lifestyle product retailer in Bolivia and found that, as the literature predicted, the firm showed no use of basic inventory control techniques. Particularly, it did not make data-driven decisions, lacked an effective inventory management system, or knew which products had higher consumer demand, and thus worked under a high level of supply uncertainty and inventory management illiteracy. Therefore, to reduce supply uncertainty, we developed a new inventory management system based on two strategies: (a) strategies to reduce demand uncertainty; and (b) strategies to reduce process uncertainty. Specifically, we implemented triple exponential smoothing for product demand forecasting, ABC segmentation to identify the most important products in the firm's portfolio, the newsvendor model to determine optimal inventory levels, powers-of-two policies, to optimize reorder times, and Turnover Based Metrics to arrange SKUs in the warehouse. Overall, our results suggest the significance of taking into account the country in which any firm operates. Hence, it should not be a surprise that in developing countries firms show high buffer stocks and generally adopt reactive flexibility practices.

## 2. Inventory management for retail companies

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In recent years, the correct management of inventories has become a fundamental pillar for achieving success in enterprises. Unfortunately, studies suggesting the investment and adoption of advanced inventory management and control systems are not easy to find. In this context, this article aims to analyse and present an extensive literature concerning inventory management, containing multiple definitions and fundamental concepts for the retail sector. A systematic literature review was carried out to determine the main trends and indicators of inventory management in Small and Medium-sized Enterprises (SMEs). This research covers five years, between 2015 and 2019, focusing specifically on the retail sector. The primary outcomes of this study are the leading inventory management systems and models, the Key Performance Indicators (KPIs) for their correct management, and the benefits and challenges for choosing or adopting an efficient inventory control and management system. Findings indicate that SMEs do not invest resources in sophisticated systems; instead, a simple Enterprise Resource Planning (ERP) system or even programs such as Excel or manual inventories are mainly used.

### 3. A Cloud-Based Retail Management System

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Retail management systems have been deployed extensively as web applications and stand-alone systems. However, in order to maximize return on investment while also improving on retail business efficiency and performance, it is imperative to explore newer technologies that can be leveraged. Cloud computing shows great potential in this regard; and so it is our aim in this paper to develop a cloud-based retail management system. We realize this by first designing the framework of the system and then implementing it.

## 4. Inventory Management System

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Online Inventory Management System is software which is useful for the companies that operate local stores, where store owners keep the records of sales and buy. The problem with the manual system is, it slows the business. This venture disposes of the executive work, human issues, manual postponement and accelerated process. Online Inventory Management System will have the ability to customer detail, track sales and available inventory, tell a store owner when it is time to reorder and how much to buy. Inventory Management System may be a web based application developed for operating the systems which are focused within the area of Inventory control and generates the varied required reports. Inventory management system could be a web application for Windows that focuses on inventory and sales clearance. it absolutely was created for Windows operating systems. The inventory management system includes a number of features. This web application has logical tools for evaluating ideal inventory levels and selecting the acceptable replenishment strategies automatically. It also has capabilities just like the

ability to spot stock levels, compute reorder points automatically, and highlight potential stock-outs. This system eliminates the chance of stock-outs of fast-moving goods by minimising delays.