LITERATURE REVIEW

[1] Retail companies have acquired significant importance within several countries due to their high economic contribution. Therefore, the need to analyze their KPIs becomes highly significant, as well as their different systems, methodologies, and tools used within inventory management and optimization. From the aspects mentioned above, the main trends in inventory management within companies were defined. Regarding KPIs, findings reveal 22 important indicators within inventory management that must be considered when retailers evaluate their stock. Among them, ten primary indicators were founded: inventory level, actual inventory and its relationship to the company's information system, shortage or shortage frequency, frequency of product reordering or replenishment, service level, replacement frequency, product availability, inventory in excess, number of items on the shelf and level of income or profit. These indicators allow the organization to know the state of the stock, to be managed appropriately, and show an excellent service quality and product availability image to the customer.

The importance of evaluating an inventory management system using indicators is reflected in the main advantages, i.e., the decrease in monetary loss, higher operating performance, and a higher profit rate. Overall, the evidence from this study suggests that order quantity, inventory localization, and optimization are the main factors in which the systems, methodologies, and tools are focused. In this context, RFID systems are the most employed tools in retail industries in terms of solving location issues because they are capable of keeping track of inventory and provide a high confidence level on inventory records. Likewise, in terms of order quantity, systems like the EOQ, JRP, the AUD and IQD policies, and MDP focus on determining the correct order of items to accomplish optimization levels. Indeed, some studies showed that retailers are working with VMI. In this methodology, the supplier controls the inventory according to the retailer behavior, leading a complete optimization of the SC.

Furthermore, the current research came up with algorithms focused on the optimization of the inventory like the Bayesian Estimation Method, the LIS for Omni-Chanel, the Threshold and Differential Algorithms, and Multi Chanel Distribution Center. All these optimization algorithms and methodologies mention the importance of having an integrated information system that allows companies to perform their decision process. It is important to mention that all retailers may not be able to employ these technologies due to their high cost of implementation and maintenance. To all those retailers with limited resources, cheaper software is accessible that could help with the management of their inventory like bar codes or policies as EOQ, AUD, and IQD, which will allow optimizing their stock without making considerable investments.

[2] Improving the sales forecast, as the less accurate it is, the more safety stock is required to ensure a given service level. As most retailers are forecast-driven rather than demand-driven, they tend to make forecasts based upon past sales or shipments instead of direct feed-forward from the marketplace on actual customer requirements. The breakthroughs of Efficient Consumer Response (ECR) and the use of information technology to capture data on demand, directly from the point-of-sale, are now improving the organization's ability to hear the voice of the market and to respond directly to it.

Finally, we conclude that marketing management has not traditionally recognized the importance of logistics and supply chain management as a key element in gaining sales advantage. However, today's challenging business environment with unpredictable demand and volatility requires a responsive positioning, supported by an expeditiously designed supply chain strategy that handles uncertainty and risks on the right way to improve customer service, profits and resources usage through the minimum costs.

References:

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