Inventory management for retailers

Abstract :

Retail inventory management is the process of ensuring you carry merchandise that shoppers want, with neither too little nor too much on hand. By managing inventory, retailers meet customer demand without running out of stock or carrying excess supply. In practice, effective retail inventory management results in lower costs and a better understanding of sales patterns. Retail inventory management tools and methods give retailers more information on which to run their businesses. Applications have been developed to help retailers track and manage stocks related to their own products. The System will ask retailers to create their accounts by providing essential details. Retailers can access their accounts by logging into the application. Once retailers successfully log in to the application they can update their inventory details, also users will be able to add new stock by submitting essential details related to the stock. They can view details of the current inventory. The System will automatically send an email alert to the retailers if there is no stock found in their accounts. So that they can order new stock.

Literature review :

a) Inventory level.

Therefore, maintaining a low inventory level of a product can create pressure among customers causing the immediate purchase of the product [3]. One reason to maintain an adequate level of inventory is that, in case of requiring to make a transfer, this allows the decision on the ideal quantity [4]. Finally, it would be interesting to consider the effect that the inventory level has on the profit levels [5].

b) Shortage of scarcity.
A lack of products can be caused by various factors, including differences between product costs, which creates the possibility of a shortage of an expensive product and an excess of cheap products [1]. There is an interaction effect between scarcity levels and price leadership; when it is the case that the scarcity increases exceeding a certain limit, the effect is reestablished. When a high level of shortage at the time of sale occurs, there is also an increase in the probability of the sale order being returned [6]. One of the reasons for a shortage is the inefficiency in the inventory replacement process an control, the inaccuracy of inventory records on various products, and the lack of inventory review [2] . Finally, low inventory levels at some point can be leveraged to carry out marketing strategies focused on scarcity [6].

C) Product reordering or replenishment.
In the retail environment, preventing the loss of sales opportunities requires the accurate and timely replacement of products to customers [7]. A periodic replenishment policy is essential, which is based in the variation of the levels of services and costs under the specific policies established [8].

d) Availability of products. The product availability is related to the inventory information provided to the customer, through which the customer verifies the service quality [3]. Besides, this information influences the customer's decision when the purchase is made [6]. Offer sellers assign a fixed amount of inventory to a sale, and the offers page shows in real-time the percentage of products claimed. This reveals the availability of products to the customer. By doing so, the inventory level consumed would generate a desired effect of the product, and thus more

sales of popular products would be made. In this way, inventory and sales control are maintained [3].

e) Product replacement. Among the strategies used by retailers to minimize the effect on operational activities caused by inventory, several different errors can be detected, such as storing additional items or increasing the frequency of restocking of stores with the purpose of maintaining a high level of inventory [2]. More frequent product replenishment results in reduced space needed for each item, warehouse release, and increased shelf space; consequently, it ends up managing a greater variety of products and freeing up capital [8]. Furthermore, a decrease in the replacement rates of products affects the optimal level of inventory, causing its increase [9]. Having lost articles gives the possibility of lost sales because the products are misplaced [7]. The concurrence of lost items is one of the causes of inventory inaccuracy [10]. Other reasons that affect the registration of inventories are the incorrect scanning of products at the time of payment and verification problems of quantities received in the store that frequently occur due to operational failures [2].

f) Preference, Purchase Decision - Sales Data, and Inventory Balance. Customer preferences, opinions, and purchasing decisions can be learned through inventory information [3]. The performance of an inventory system can be determined when calculating the probability of the inventory equilibrium state [9].

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