## **Data Analytics**

## **Retail Store Stock Inventory Analytics**

## **ABSTRACT**

Inventory is the goods and merchandise which is stocked in store for future use, every retail store has a warehouse to stock the merchandise to be used when the existing stock is sold to their customer. The inventory management is systematic approach of sourcing, storing and selling the products to customers. In business terms inventory management means right stock, right place, right time, right cost, right price. The benefits are better inventory accuracy, better relations with vendors & suppliers, increased profit, better customer experience. The terminology used in inventory management is SKU-stock keeping unit and each SKU has unique code, stock out, the situation where the retailer fails to fullfill the customer requirements, economic order quantity, how much to be reordered taking into holding costs. The landing costs are costs of shipping, storing, import fees, taxes other expenses. The lead time, a time takes a supplier to deliver goods after the order is placed. The purchase order is the commercial document between supplier and buyer that outlines type and quantities for products.

The reorder point is determine when reordering should occur and taking into account current future demand. The sales order is the transactional document sent to customer. The safety stock it is buffer stock and it is reserved to guard against the shortages. To prevent loss of inventory to establish employee frisking and raise alarm if someone is stealing in store, avoid multiple exits in store and keep proper records of inventory. We use linear regression in inventory analytics, linear regression models are relatively simple and provide an easy-to-interpret mathematical formula that can generate predictions, proven way to scientifically, reliably predict the future. Because linear regression is a long-established statistical procedure.

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