

Inventory Management System for Retailers

Ms. Akalya Devi C¹, Harisudhan T², Jeevanantham V K³, Jhanani J⁴, Kavi Varshini S⁵

¹*Assistant Professor, Department of Information Technology, PSG College of Technology,*
^{2,3,4,5}*Final Year B.Tech Information Technology, PSG College of Technology*

Problem Statement

To develop an Inventory management system to support retailers, maintain inventory such that they meet customer demand without running out of stock or carrying excess supply.

Mr. Raj is the owner of XYZ garments. XYZ primarily sells finished garments that are ready for sale. This firm has few suppliers who provide raw materials like threads and dyes. After appropriate processing of these raw materials, the garments are put to sale. His firm makes an average turnover of 10 Crores per year. Since the firm is large and it grows constantly, manual inventory management becomes tedious. XYZ is also involved in B2B trading, where the raw materials from their suppliers are traded off with other organizations. Since there are many concurrent and complex trade offs, inconsistent transactions and updates on the quantity of stocks are noticed. Even though a skillful team is appointed to handle the inventory, reduction in performance and turnover of the organization is noticed. After analysis, the officials of the organization found that their inventory management planning needed attention. The solution to improve the firm is to employ a software based inventory management system which will assist the firm in maintaining the right quantity of stock at the right time and also handle product transactions.

Who does the problem affect?	Retailers such as Raj, who owns organization
What are the boundaries of the problem?	Organizational, Workflow
What is the issue?	Tedious tracking of stock - right amount of stock at right time and right place
When does the issue occur?	When a small organization scales up and maintains many to many transaction associativity with other organizations
When does the issue occur?	When there is a huge warehouse that needs maintenance (where products are to be stored and retrieved)
Why is it important that we fix the problem?	To manage retailer's inventory such that they meet customer demand without running out of stock or carrying excess supply. This can increase the effectiveness of sales and improve their annual turn around.