ABSTRACT

In the modern industrial era, the role of warehouses in ensuring smooth supply chain operations is crucial. Warehouses are not only storage spaces but also play a significant role in inventory management, quality control, and timely distribution. PT XYZ is a company engaged in connectivity solutions and telecommunications infrastructure. The company has a warehouse to store NTE and Non-NTE products. Based on interviews and observations, it was found that the arrangement of Non-NTE products in PT XYZ's warehouse is disorganized, with items of various sizes placed haphazardly. This leads to inefficient space usage, disrupted material handling pathways, and difficulties for operators in managing the products. This research aims to design the layout of PT XYZ's Non-NTE warehouse using the class-based storage method and ABC analysis. This method groups products based on similarity and importance, which has been proven to increase storage space efficiency and the movement of goods. The results show that the class-based storage method and ABC analysis can reduce the total distance of goods movement by up to 63.81% and material handling costs by up to 4.32%, indicating significant improvements in warehouse operational efficiency and effectiveness.

Keywords: Class-Based Storage, Warehouse Facilities, ABC Method, Layout