

## **ABSTRACT**

The company that being analyzed is PT XYZ, which is a multinational pharmaceutical company and grow to be as an agent and distributor. PT. XYZ receives large quantities of goods and place it in the reserve area. However, in the order picking activity, the goods mostly delivered to the customer in small quantity, so the goods are stored in two types, the products that stored on the pallet that been placed on the rack (reserve area) and the product in the form of retail that came from bulky and placed into the bin (forward area) by the replenishment operator.

Sometimes the order picker has to pick a product before replenishment crew has had time to replenish it, and thus faces a stockout (which we will call a 0-pick). Stockouts or 0-picks reduce the productivity of picking operations because of the missing products can only be picked once the restock has taken place. This causes delays in shipping and unproductive for the picker. and even worse, if the demand is not fulfilled it can become lost sales.

The problem that PT XYZ faced is not only when the product doesn't exist, but also when the product is not replenished to the forward area. There is so much product left in the reserve area and haven't been replenished to the forward area because there is lack of coordination between the replenishment operator and the picker.

One of the strategies to speed up order picking and to deal with small quantities in the order lines is to operate a forward area from which the most demanded products can be picked quickly. To address this issue, this research objective is to reduce the stockout (0-picks) by maintaining the stocks using the e-Kanban system and stock priority for the replenishment process at pharma directorate in warehouse of PT XYZ.

Keywords: Electronic Kanban System, Inventory, Order Picking, Priority Rules Replenishment, Warehouse.