ABSTRACT

PT. XYZ is a manufacturing and distribution company engaged in the field of industrial spring industry which has 2 plants in Indonesia including in Cibitung and Karawang. Warehouse service part is still not optimal can be seen based on data warehouse activity that has been done in the warehouse where there is a quite high gap between PO and DO. One of the causes of DO is not fulfilled due to the time delay on warehouse activity. The key performance indicator that has been in the company that is fulfillment demand loading goods from warehouse service part for ≤ 30 menutes. The warehouse activity of the service part has a process time under the standard time on picking order activity, ie 21%. In addition, product placement is done randomly, causing storage for irregular service part products.

This was due to product assignment is inappropriate and therefore this activity delay that couse a long search time. Fisrt step was calculated each standart time activity at service part warehouse. Then map the flow of goods and information in the warehouse with current state design. So the process time and value of each activity was obtained. Based on curent state design, order picking activity had the biggest non value added times, which is 25%. Therefore, this research did service part product storage allocation to reduce non value added time especially on order picking by classification using FSN Analysis, then slotting, rectilinear distance, zonafication and simulation to determine placement placement area for each SKU based their classification.

After conducting future state mapping, there is an increase in the percentage of added value from the current condition to the proposed condition from 61% to 70%. And the decline percentage of non value added from 39% to 30% and total fulfillment of service part product decreased from 38,28 minutes to 28,09 minute.

Keywords : Warehouse, FSN Analysis, slotting, rectilinear distance, zonafication