EVALUATION FOR FINISH PRODUCT STORAGE AND DELIVERY SYSTEM TO INCREASE WAREHOUSE SPACE AVAILABILITY USING SIMULATION APPROACH: Case Study Finish Product Warehouse PT. Philips Indonesia

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Abstract

This research aimed to evaluated storage and delivery system of finished goods (FPWH) at PT Philips Indonesia by using simulation methods. This implementation was carried out considering the frequent occurrence of shortages of goods racks storages so there are many goods that must be stored in the corridor area resulting in decrease warehouse performance. Therefore this study will attempt to increase the availability of space in the warehouse through improving throughput and reducing the inventory levels. In addition to these factors, the study was conducted in light of PT Philips Indonesia plans to increase production which will lead to increase the number of products that must be stored in FPWH. This research will try to find the best scenario problem solving through simulation methods using the software Arena 5.0. The result showed that the best scenario that could increase the warehouse space availability when there is an increase of production is repaired scenario 4, the scenario by making changes in storage policy and the addition resources of order picking and loading process. From that scenario is obtained an increase of 15.6% space availability, increase throughput by 14.9%, and decrease inventory levels by 11%.

Keywords: Arena Simulation, Space Availability, Warehouse
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