

ABSTRACT

PT. XYZ is a company that produces fabrics and being a global supplier of fashion and corporate apparel. PT. XYZ has a semi finished good warehouse or greige warehouse as they said. In semi finished good warehouse, the product that stored in the warehouse is a plain fabric that has been through the weaving process. PT. XYZ has located in Cimahi. Product storage system in semi finished good warehouse is still done randomly by searching for empty storage without considering the characteristic of the product that will be stored. And the impact is the cycle time has being high as well and the company cannot reach the target of the company, especially in the storing and picking process. Delay was caused by the high search of product location time.

To solve the problem of delay that occurs in PT. XYZ's semi finished good warehouse, is proposed by designing proposed product storage allocations based on class based storage policies as well as determination of slotting and zonafication. The first step of this research is identifying the cause of delay using value stream mapping. After that, classify the product using FSN analysis. The final step is to simulate the picking list and determine the shortest route using dynamic programming algorithm to compare actual condition with the proposed condition after this research is done.

Based on value stream mapping future state, the value added time has decreased by 351,33 seconds lower than the actual condition.

Keywords : FSN Analysis, Warehouse Slotting, Value Stream Mapping, Dynamic Programming