ABSTRACT

Adorable Projects is a micro, small and medium enterprise (MSME) which operates in the creative industry and sells its products in the field of women's fashion. Adorable Project has 30 vendors to produce its products, and has ± 500 product articles, making it a product sold by Adorable Projects, Adorable's warehouse. has an area of 26 m2. The current conditions faced by the Adorable Projects warehouse are that the implementation of storage allocation is still not going well, so goods are stored randomly, order picking activities experience a time spike of 24%. The dedicated storage method was chosen because it has a fixed storage policy for products to specified locations. Predetermined depending on the type of item being stored, while discrete event simulation was chosen as a tool capable of describing it without direct implementation. Simulation is used to evaluate random events that may occur so that a simulation approach is chosen to predict a complex system by observing the movement of goods and interactions between components in the system. The conditions for improvement carried out are related to the allocation of goods placement, and in developing the scenario additional material handling was carried out to minimize the distance traveled in carrying out the process of picking up goods. The research results show that storage using the dedicated storage method can reduce travel distance by 34,25% and the development of the simulation model that is built can be used to improve order picking activities so that the process of picking goods does not take too long. goods will be cut 62,37%. The proposed benefits provided are based on scenario analysis, the selected scenario is scenario 4 with a reduction in order picking time of 62,37%. Scenario 4 involves making changes to storage allocation and changes to parameters 1 and 2. This condition was chosen because it provides the most ideal change impact regarding order picking activities.

Keywords: Cycle Time, Order Picking, Dedicated Storage, Simulation Discreate-event, Scenario