

ABSTRACT

Cv Omocha Toys is a company that manufactures wooden toys, educational toys, and other educational products using make-to-stock (MTS) and make-to-order (MTO) production strategies. The current production scheduling system, which uses the First Come First Serve (FCFS) guideline, often experiences delays in order completion due to order priority management.

To address these issues, this study aims to identify constraints in the production scheduling system, design a scheduling model that integrates MTS and MTO strategies, and improve production flow efficiency to minimize order delays. This study employs the dispatching rule method using the earliest due date (EDD) and shortest processing time (SPT) guidelines to address the primary issues at CV Omocha Toys. The scheduling designed for the MTO strategy prioritizes orders based on EDD and SPT. Meanwhile, for the MTS strategy, it utilizes the idle time between MTO orders to produce warehouse stock, prioritizing production with the smallest processing time while considering safety stock requirements and regular product demand.

The results of the proposed scheduling design using the EDD and SPT guidelines, with a simulation of 5 jobs consisting of order data from February, March, and June 2024, show a reduction in order completion delays of 0 days compared to the company's current scheduling of 8 days.

Keywords: Make-to-stock, Make-to-order, Earliest Due Date, Short Processing Time.