

ABSTRACT

A warehouse is a facility designed to store goods and facilitate the movement of materials such as stock checking, storage, and shipping. Optimizing warehouse operations is important to avoid problems that occur in the warehouse. PT Daya Inovasi Mandiri (DIM) is a company engaged in the manufacturing and service industries in Bandung City. PT DIM has two warehouses, one of which is the tools warehouse. In the PT DIM tools warehouse, there are 3 types of goods categories, including 35% K3 equipment, 25% consumable goods, and 40% work equipment. In its operations, PT DIM often experiences delays in the service of borrowing goods in the warehouse. This is caused by several factors, including the less than optimal operation of the warehouse management system, resulting in waste in the process of borrowing and returning goods in the warehouse. In an effort to overcome this problem, a proposal design was carried out using the *Lean* warehousing approach. The methods applied in this study include value stream mapping (VSM) and process activity mapping (PAM) analysis to map current conditions (current state) and design ideal conditions (future state), FSN classification to optimize tool storage allocation in the warehouse, and the creation of SOPs, key performance indicators, and excel dashboards to assist and support the operation of borrowing and returning tools in the warehouse. The design results show that the application of the proposed design with a *Lean* warehousing approach can reduce the time for borrowing and returning tools by up to 23.24%, with value added and non-value added values at the time of the future state of 41.40% and 58.60%. From these results, it can be concluded that the results of the proposed design can increase efficiency and minimize waste during the process of borrowing and returning tools in the warehouse.

Keywords: Warehouse Management, Tools Borrowing and Returning Process, *Lean* Warehousing