

ABSTRACT

Production process efficiency is a crucial factor for manufacturing companies to maintain competitiveness, reduce costs, and meet market demand in a timely manner. This study aims to propose improvements to the layout of production facilities at Vulkanisir Ban Poetra Maju Bali, a company engaged in tire retreading, in order to improve the efficiency of the production process. The company faces problems such as unoptimized facility layout and irregular material flow, which cause production delays and increased operational costs. The current facility layout system has an inefficient material flow pattern because the placement of production areas and raw material storage is not in the order of the process, thus affecting the material movement time and increasing the distance of material traveled in production. In an effort to overcome these problems, this reseARCh applies the Systematic Layout Planning (SLP) method, which is a systematic method of layout planning by considering material flow, relationships between departments, and efficient space requirements. SLP allows companies to redesign layouts with more organized and systematic flow patterns, so as to reduce the distance of material movement and improve workflow. The results show that the application of the SLP method is able to improve the efficiency of the layout of production facilities at Vulkanisir Ban Poetra Maju Bali, which has implications for increasing company productivity and reducing operational costs associated with material movement and handling. With the proposed layout improvements, the company is expected to increase its production capacity and overall efficiency. In addition, the results of this reseARCh also contribute to the development of knowledge in the field of production management, particularly related to the optimization of facility layouts in the tire retreading industry.

Keywords: *facility planning, production efficiency, production retread tire, Systematic Layout Planning*