

ABSTRACT

Inpi House UMKM is a company engaged in the wood industry, specifically in the production of display items made from mahogany wood. This company faces challenges related to the high number of defective products in the production process of display racks. The most frequently found defect is dimensional inconsistency in the display racks, which leads to material wastage, preventing the company from meeting its production targets. Based on observations and interviews, the defective products with dimensional discrepancies originate from the imprecise wood cutting process. This inconsistency is only detected after the display racks have been assembled, as there is no inspection process at the wood cutting stage or for semi-finished products. The company lacks a well-documented inspection procedure and does not have a structured system for recording defective products. As a result, products that do not meet the standards are assembled and difficult to repair, leading to product elimination and material wastage. This study aims to design an inspection procedure for the production process of display racks, based on the ISO 9001:2015 Clause 8.7 requirements for controlling nonconforming outputs, using the Business Process Management (BPM) method with a BPM lifecycle approach that includes process identification, process discovery, process analysis, and process redesign stages. The research results in an inspection procedure that includes the inspection process for semi-finished and finished products to reduce the number of defective products that pass through. This proposed procedure is expected to help the company reduce the number of defects, improve product quality, minimize material wastage, and increase the chances of meeting ISO 9001:2015 quality standards and achieving certification as a quality assurance guarantee.

Keywords: Inspection, Inspection Procedure, ISO 9001:2015, Business Process Management (BPM), Product Quality Improvement