ABSTRACT

CV Kayu Aji faces problems related to the absence of a final product inspection process, which allows *defect*ive products such as wood with inappropriate dimensions to be shipped to customers. This has led to high customer complaints regarding variations in wood dimensions and has the potential to reduce customer satisfaction and trust. This problem is reinforced by customer complaint data and field observations that indicate weak quality control in terms of final product dimensions. Therefore, a solution is needed to assist the inspection process to ensure products meet quality standards before distribution.

The method used in this study is the *Quality Function Deployment* (QFD) approach to design inspection tools and develop Standard Operating Procedures (SOPs). The process began with the collection of primary data through interviews and direct observations, as well as secondary data from internal company documents. *Voice of Customer* data was processed into statements of need, then converted into technical responses through the *House of Quality* (HoQ) to design technical specifications for inspection tools that meet user needs.

The results of this study are the design of a wood product inspection tool capable of measuring dimensions and detecting curvature with higher accuracy and efficiency. This tool is equipped with a support structure, a flexible measurement system, and easy-to-understand reading indicators. Additionally, the design of the final product inspection SOP was developed as a systematic guide for implementing the inspection process at CV Kayu Aji. Validation results indicate that the tool and SOP are designed to meet user needs and expectations.

The implications of this research suggest that the implementation of inspection tools and SOPs can enhance quality control, reduce *defect*s, and improve customer satisfaction, thereby helping CV Kayu Aji achieve more structured quality management and enhance competitiveness.

Keywords: Inspection tool, Inspection, SOP