ABSTRACT

Musculoskeletal Disorders (MSDs) is a disease in the form of complaints that attack the skeletal muscles caused by someone who works in non-optimal conditions such as forced movements, ineffective work postures, and receiving physical operator loads for a long period of time. Complaints received by operators can be vary. According to the World Health Organization (WHO) in 2022 there are around 1.71 billion people in the world who suffer from MSDs with various types of complaints and can attack from all ages, including small industries such as MSMEs. The Cibaduyut shoe center area is an MSME area for shoe producers in Indonesia, which was established in 1920, so that the production of shoes produced even though using traditional and conventional methods is still recognized for qualified production quality, one of the MSMEs will be used as research. The process studied is in the assembly process which is part of the shoe making process that still uses conventional methods with traditional tools such as pliers, hammers, and other tools. Researchers make observations by making observations, especially in terms of ergonomics of the operator. The purpose of this study is to conduct an analysis for making proposals for improvements to the posture of shoe craftsmen caused by the assembly process with a prolonged time, for the analysis method, the author uses the RULA (Rapid Upper Limb Assessment) tool to analyze the operator's posture in the assembly process. The use of RULA tools was chosen because the work process carried out by the operator is in the upper posture such as the neck, hands, and back. The right tools are needed to find out the problems that can occur in the process of making shoes by shoe craftsmen, therefore, the author uses Fishbone diagrams that use a systematic cause and effect analysis that analyzes the cause and effect of problems that need to be solved. Then to analyze improvements to proposed tools is carried out using the QFD (Quality Function Deployment) method which is used to determine the optimal specifications for proposed improvements, using the House of Quality which is a method of QFD to determine the conformity of specifications in order to achieve conformity to product specifications and consumer needs.

Keywords : Shoes, RULA, QFD, *Fishbone*