

ABSTRACT

Ayam Geprek Bajek SME faces the risk of musculoskeletal disorders in workers due to the use of conventional tools in the chicken grinding process. Workers complain of pain in the shoulders, upper arms, and back, indicating the need for ergonomic improvements. Therefore, this final project is designed to identify user priority indicators and design a chicken shredding tool that can meet user needs and effectively reduce the risk of musculoskeletal disorders in workers.

This research uses the Quality Function Deployment (QFD) method to design a chicken shredding aid that meets user needs. This method identifies user needs and preferences that are translated into technical specifications. Evaluation of workers' posture was carried out with Rapid Upper Limb Assessment (RULA) calculations to assess ergonomic risks related to musculoskeletal disorders.

The results showed that the designed chicken shredding tool meets the needs of workers for tools that are comfortable, safe, and able to reduce physical burden. Based on calculations with Jack 8.2 software, the RULA value decreased from 5 to 3, indicating a reduction in the risk of musculoskeletal disorders.

The implication of this research shows that the designed chicken shredder is proven to be effective in reducing the risk of musculoskeletal disorders (MSDs) and increasing work comfort for workers at Ayam Geprek Bajek SME. The design of this tool is based on user needs and supported by appropriate technical calculations to overcome existing problems.

Keywords: Ergonomics, RULA, Musculoskeletal Disorders, Quality Function Deployment, House of Quality.