

ABSTRACT

The problem in this study is that the flour packing machine at the Braling Gold Seasoning Flour UMKM has not been designed ergonomically. As a result, workers have difficulty in filling materials, are at risk of injury, and the packaging results are inaccurate. This study produces a new machine design based on direct input from workers. ***This topic is important because operator comfort and safety greatly affect the productivity of UMKM.*** Machines that are too high, difficult to fill, and inaccurate measuring instruments indicate a gap between the current condition of the machine and the expectations of users in the field. ***The solution is carried out through the Quality Function Deployment (QFD) approach to convert user needs into technical specifications.*** Data was collected through interviews and observations, then processed into a House of Quality (HoQ). Two alternative designs were developed, then compared using the Weighted Objective method to choose the best design that meets ergonomic needs, accuracy, and ease of use. ***The final design selected has an ergonomic structure, a wider and lower hopper, and anti-slip feet.*** These results show that the QFD approach is effective in designing machines that suit the operational needs of UMKM.

Keywords: Product design, Ergonomics, HoQ, Flour Packing Machine, QFD