

ABSTRACT

Demand for chicken products in Indonesia is increasing, making efficient and effective farm management extremely important. However, many chicken farms still rely on manual processes, particularly when it comes to feeding. The reliance on manual labor for feeding activities leads to several challenges, such as inaccurate feed measurements, delayed distribution times, and high operational costs. Therefore, technological innovations are needed to enhance the efficiency and effectiveness of livestock management systems. This study aims to design an Automatic Feeder capable of dispensing feed automatically. The approach used is Quality Function Deployment, which enables the identification of farmers' needs through surveys and interviews, then translates these into technical specifications through the stages of need statement, technical response, House of Quality, and concept selection and development.

The results of this research produced an Automatic Feeder design consisting of a hopper as a feed storage unit, a motor for automatic distribution, and a button system for easy operation. This design is adapted to the actual conditions of the poultry house and considers capacity, material reliability, and energy efficiency. With this design, feed distribution becomes more consistent, accurate, and independent of manual intervention. This system is also expected to reduce the number of workers required and minimize human error in the chicken farming process. The implementation of this device is anticipated to support digital transformation in the poultry sector while serving as an applied solution to enhance productivity and animal welfare.

Keywords: Automatic Feeder, Quality Function Deployment, Automation, Chicken Farming, Operational Efficiency, Product Design