

ABSTRACT

Handayani Furniture is a Micro, Small and Medium Enterprises (MSMEs) that produces and sells furniture products made of wood, one of which is a wardrobe. These products often experience repetition of the production process because there are still product defects that appear. The most common types of defects are gaps and cracks on the surface of the cupboard. The unachieved CTQ of the product itself is caused by an unfulfilled CTQ process. The problem found based on this method is that the gain does not always reach the hot sun because the sun's heat does not always appear. Therefore, this study aims to design a drying aid that can reach a minimum temperature of 150°C in order to dry raw materials to the desired dryness conditions in cabinet production at MSMEs Handayani Furniture in order to minimize defects with the DMAI Method and Quality Function Deployment (QFD). The DMAI (Define, Measure, Analysis, Improve) method is used to reduce defects in the production process by taking into account the entire production process and the problems found using this method. The QFD method is used to fulfill the Improve stage by designing wooden hair dryer products by developing products that are already on the market and adapted to the needs of UMKM Handayani Furniture. The oven is designed with the specification of having glasswool inner material, adobe outer material, fire furnace heat source, zinc roofing material, 2 blowers, product size 300×200×300cm, has a pipe for smoke to escape, has a door made of aluminum, has a steel plate for separate heat sources from raw materials, and use an analog thermometer as a temperature gauge. The success of installing the wood drying oven is evidenced by the increase in the sigma value from the existing sigma value of 3.10 sigma to 3.29 sigma, an increase of 0.19 sigma.

Keywords: Six Sigma, DMAI, product defects, furniture, QFD.