

ABSTRACT

CV. Berdikari is a manufacturing company specializing in the production of healthcare equipment using a *Make to Order* (MTO) system. One of the company's main products is patient examination beds. However, the production process frequently encounters defects such as double lines, loose stitching, and uneven stitching, which negatively impact product quality and production efficiency. Root cause analysis identified that the primary causes of these defects are inaccuracies during the sewing process, poor lighting in the work area, and manual errors by operators.

This study aims to minimize sewing defects by implementing the *Poka Yoke* method, which is designed to prevent human errors during the production process. The proposed solution involves designing a visual aid using a laser-guided system on the sewing machine to help operators sew more accurately, thus reducing the potential for errors. Additionally, enhanced lighting was introduced to improve operator visibility during the production process.

The methodology included defect data collection, root cause analysis using a *fishbone diagram*, and testing the implementation of the visual aid in the production process. The results show that the laser-guided aid significantly reduced sewing defects by up to 30-40%, increased production efficiency, and improved overall product quality. These findings confirm that the *Poka Yoke* method is effective in preventing defects caused by manual errors at CV. Berdikari.

Keywords: *Poka Yoke*, Lean Manufacturing, production defects, production efficiency, visual aid