ABSTRACT

Konveksi Raxsa.co Apparel is a company operating in the convection sector, producing various products such as t-shirts, shirts, hoodies, manual embroidery, polo and jackets. The product examined in this research is t-shirts. In the t-shirt production process, defects were discovered that affected product quality. Based on company data, the defect rate in the period January to December 2022 to 2023 is within the tolerance limit set by Konveksi Raxsa.co Apparel, namely 2%. The main problem is in the sewing process, where the process performance still does not meet standards so that the output produced does not meet company specifications. Root cause analysis using a fishbone diagram and 5 why's analysis shows that the main causal factors are the use of damaged or inappropriate needles and inappropriate pressure settings on sewing machines for certain types of materials. Therefore, the proposed solution is in the form of designing a sewing machine alarm that can help operators as a reminder to replace needles, regulate sewing machine pressure, place needle storage, and note reminders. It is hoped that the presence of this sewing machine alarm can help improve product quality, production process efficiency and customer satisfaction. This research uses DMAI (Define, Measure, Analyze, Improve) analysis as a structured problem solving approach and the Quality Function Deployment (QFD) method.

Keywords - Defect, DMAIC, Fishbone Diagram, QFD.