

ABSTRAK

PT. XYZ is a manufacturing company engaged in assemblers and car product manufacturers in Indonesia. One type of car produced is X123 which is the focus of this research. Historically, there are several types of Defects that occur in the X123 car production process, such as incorrect parts, scratches, missing, noise, and function failures. This research is carried out with a six sigma approach using the DMAI methodology. The define stage consists of making a SIPOC diagram, identifying CTQ, defining the amount of production data and defect data in the period September 2018 - August 2019, and defining the type of defect. In the Measure phase contains a discussion about measuring the stability and capability of the process. In the analyze phase contains an analysis of processes that have not been good using pareto diagrams, root problem analysis using fishbone diagrams, and analysis of proposed improvements with FMEA. In the improve phase contains proposed improvements to reduce defects using 5W + 1H and the design of proposed tools. Proposed improvements given to the assembly trimming process to minimize the types of defects incorrect parts are proposed tools for visual information based on Ms. Access, which is called database option. Database option contains a database for each part code to be assembled in the assembly trimming process. The proposed design contains a view for the main menu of the database option and a display of results from the part code search.

Keywords: *X123, Six Sigma, DMAI, Incorrect part, Assembly Trimming.*