

Pengendalian Kualitas Dengan Metode *Six Sigma* Pada Keripik Tape
Di UMKM Koplak *Food* Kecamatan Ajung Jember
(*Quality Control Using The Six Sigma Method On Tape Chips*
***At Koplak Food Ajung Jember*)**
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ABSTRACT

Koplak Food is a well-known MSME in Jember for its cassava chips production. To address the challenges of maintaining consistent product quality, quality control is essential to identify the causes of defects and promptly address them. This study aims to identify the causes of product defects, determine the sigma level, and propose improvements for Koplak Food. The research employed a quantitative descriptive approach, utilizing primary data and secondary data in the form. Data were analyzed using Microsoft Excel 2021 using the Six Sigma method through the DMAIC (Define, Measure, Analyze, Improve, and Control) steps. Two types of defects were identified, namely crushed at 4,72% and broken at 6,15% from 20 observations, analyzed using the SIPOC diagram. The p-control chart indicates that the production process is not yet under control. The DPMO (Decreased Product Quality) was 54,339.80 with a sigma value of 3.1, which indicates compliance with Indonesian industry standards. Fishbone analysis was used to identify the causal factors of defects, including human factors, machines, methods, and materials. Recommendations for improvement include routine equipment maintenance. Standardizing slice thickness and training employees in product handling techniques are essential. Implementing standard operating procedures (SOPs) for pouring and storing chips with compartmentalized shelves is also necessary to ensure the chips remain intact until they reach the consumer.

Keywords: Product Defects, Tape Chips, Quality Control, Six Sigma