The Application of Kaizen to Increase the Productivity of the Tofu Production Line Using the Six Sigma Method Through DMAIC Stages (Case Study of UMKM Saudara Jaya in Jember Regency)

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ABSTRACT

UMKM Saudara Jaya is one of the UMKM in Jember which is engaged in processing soybean commodities into derivative products, namely tofu. UMKM Saudara Jaya is a micro-scale business because annual sales are at most IDR 300,000,000. This business still has many tofu productions defects. Product defects that occur a lot are defects that are not in accordance with SNI for tofu products. It is hoped that there will be efforts to propose improvements to tofu products in the UMKM Saudara Jaya so that they can increase the productivity and quality of tofu products. The damage that occurred in this business made researchers decide to investigate defect products known this business. This research uses the method of Six Sigma aims to determine the level of non-conformance of white tofu products. This research uses the method of Six Sigma aims to determine the level of defect white tofu produced, then the DPMO value and sigma level are determined. The next step is continued the search for the factors that cause the defect known as white so improvements to improve product quality and minimize the occurrence of defects or defects known as white can be proposed. The results showed that the tofu production process in this business was still at the upper and lower central Lines. The DPMO value obtained by UMKM Saudara Jaya is 240.625, which means that the Sigma value of UMKM Saudara Jaya is 2.20. That is means UMKM Saudara Jaya are at the industry average level in Indonesia, that is 2 sigma.

Key Words: Tofu, DMAIC, DPMO, Sigma, UMKM Saudara Jaya