Analysis of Quality Control with the Six Sigma Method in Efforts to Reduce Broiler Product Defects at UD Mandiri Jaya in Mayang District, Jember Regency

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ABSTRACT

Broiler chickens are beef cattle that produce meat for consumption in a short harvest period compared to other beef cattle. UD Mandiri Jaya is a company engaged in the agro-industry sector in the form of broiler chicken suppliers in Mayang District, Jember Regency. The problem faced by the company is that the products marketed are not in line with expectations, where the quality of broiler chickens is not up to standard, in other words the broiler chickens marketed have defects. This study aims to 1) determine the quality control carried out on broiler chicken products at UD Mandiri Jaya. 2) Knowing the Deffect Per Million Opportunity (DPMO) value and sigma level in broiler chicken products at UD Mandiri Jaya, 3) Analyzing the factors that affect the quality of broiler chicken products at UD Mandiri Jaya. The method used in this research is six sigma. Six sigma is a quality improvement tool based on the use of data and statistics with five stages of six sigma namely define, measure, analyze, improve, and control. Based on the results of the p control chart, it can be concluded that the overall defect data for broiler chicken products is still within the statistical control limits, because from the entire p control chart there are no defective components that are outside the upper and lower control limits. The results of calculating the DPMO and sigma level at UD Mandiri Jaya can be seen that the DPMO value obtained is 116,146, meaning that in one million units or processes there is a possibility of product nonconformance of 116,146 units/process with a sigma level of 2.69 sigma.

Keywords : Broiler Chickens, Quality Control, Six Sigma Method, UD Mandiri Jaya