

***Quality Control Analysis Of Joker Connecticut
Cigar Product Using Six Sigma
Method With DMAIC Stages
(Case Study at CV Dwipa Nusantara Tobacco Jember)***

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ABSTRACT

CV Dwipa Nusantara Tobacco is a tobacco industry in Jember Regency that produces cigars. The company faces defect issues with the Joker Connecticut cigar product, with defect rates reaching 7% to 30% of total production, which results in reprocessing or disposal of the product so that it cannot be distributed to consumers.. This research was conducted using the six sigma approach through DMAIC (Define, Measure, Analyze, Improve, Control) stages with the implementation of FMEA (Failure Mode and Effect Analysis) during the improvement phase. The research focused on three Critical to Quality (CTQ) categories: body defects, wrapper breakage, and hard cigars. The research yielded a DPMO (Defect Permilion Opportunities) value of 43.922 with a sigma level of 3,2, which meets the average industry standard in Indonesia. Based on the Risk Priority Number (RPN) calculation, three main causes of defects were identified: easily torn wrapper leaves (432), excessive stacking during storage (384), and uneven leaf distribution (343). Improvement recommendations include layout redesign and temperature adjustment in the storage process, employee skill enhancement through training, and implementation of continuous quality control.

Keywords: Cigar, Product Defects, Six Sigma, DMAIC, FMEA, RPN