

ABSTRAK

ANALISIS PERBANDINGAN PENGENDALIAN KUALITAS PADA PRODUK PITA CUKAI SETELAH DILAKUKAN METODE DMAIC

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Penelitian ini bertujuan untuk menganalisis perbandingan pengendalian kualitas produk pita cukai sebelum dan sesudah penerapan metode *Define, Measure, Analyze, Improve, Control* (DMAIC). Inovasi perbaikan sebelumnya difokuskan pada penurunan jenis kerusakan blobor dari tiga jenis cacat utama, yaitu *blobor*, *miss register*, dan *zig-zag*, yang pada tahun 2022 menyumbang rata-rata persentase kerusakan sebesar 4,10% atau 7.143.284 lembar. Data yang digunakan adalah data produksi tahun 2022 (sebelum inovasi) dan tahun 2023 (sesudah inovasi). Metode DMAIC digunakan secara konsisten untuk mengukur persentase kerusakan, nilai sigma, dan *Defects Per Million Opportunities* (DPMO), serta menganalisis akar masalah melalui diagram Pareto dan diagram sebab-akibat. Hasil analisis diharapkan menunjukkan efektivitas perbaikan dalam menurunkan tingkat cacat dan meningkatkan nilai sigma, sehingga dapat menjadi acuan perusahaan dalam mempercepat perbaikan proses produksi serta menjaga kualitas produk secara berkelanjutan.

Kata kunci: Pengendalian kualitas, DMAIC, Pita Cukai, Six Sigma.

ABSTRACT

COMPARATIVE ANALYSIS OF QUALITY CONTROL IN EXCISE STAMP PRODUCTS AFTER APPLYING THE DMAIC METHOD

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This study aims to analyze the comparison of quality control in excise stamp products before and after This study aims to analyze the comparison of quality control in excise stamp products before and after the implementation of the Define, Measure, Analyze, Improve, Control (DMAIC) method. The improvement efforts were focused on reducing Blobor defects, which is one of the three main types of defects, along with miss register and zig-zag. In 2022, these defects accounted for an average damage rate of 4.10%, equivalent to 7,143,284 sheets. The data used in this study include production data from 2022 (before improvement) and 2023 (after improvement). The DMAIC method was systematically applied to measure the defect percentage, sigma level, and Defects Per Million Opportunities (DPMO), and to analyze the root causes using Pareto diagrams and cause-and-effect diagrams. The results are expected to demonstrate the effectiveness of the improvements in reducing the defect rate and increasing the sigma level, thereby providing a reference for the company to accelerate production process improvements and maintain product quality sustainably.

Keywords: *Quality control, DMAIC, excise stamp, Six Sigma.*