

ABSTRAK

ANALISIS PERBAIKAN KUALITAS PRODUK FLOOR REAR DI PT SUMMIT ADYAWINSA INDONESIA DENGAN MENGGUNAKAN METODE DMAIC DAN FMEA

Penelitian ini bertujuan untuk menganalisis dan meminimalkan tingkat cacat produk *Floor Rear* di PT Summit Adyawinsa Indonesia dengan menggunakan metode *Define, Measure, Analyze, Improve, Control* (DMAIC) serta *Failure Mode and Effect Analysis* (FMEA). Hasil penelitian menunjukkan bahwa tingkat sigma awal sebesar 2,73 meningkat menjadi 3,20 setelah dilakukan perbaikan, yang menandakan adanya peningkatan kapabilitas proses. Total cacat berhasil diturunkan dari 27 menjadi 11, dengan penurunan signifikan pada kategori *Surface 1*, *Trimline*, *Hole*, dan *Appearance*. Melalui penerapan FMEA, prioritas perbaikan dapat difokuskan pada penyebab dominan berdasarkan nilai *Risk Priority Number* (RPN). Temuan ini membuktikan bahwa integrasi metode DMAIC dan FMEA efektif dalam mengidentifikasi sumber permasalahan serta memberikan rekomendasi solusi yang berkelanjutan untuk peningkatan kualitas produksi. Penelitian ini diharapkan menjadi acuan bagi perusahaan dalam pengendalian kualitas serta pengembangan strategi perbaikan proses produksi di masa mendatang.

Kata Kunci: Cacat Produksi, DMAIC, FMEA, *Floor Rear*, Perbaikan Kualitas, *Sigma Level*.

ABSTRACT

Quality Improvement Analysis of Floor Rear Product at PT Summit Adyawinsa Indonesia Using DMAIC and FMEA Methods

This study aims to analyze and minimize the defect rate of Floor Rear products at PT Summit Adyawinsa Indonesia using the Define, Measure, Analyze, Improve, Control (DMAIC) and Failure Mode and Effect Analysis (FMEA) methods. The results showed that the initial sigma level of 2.73 increased to 3.20 after improvements were made, indicating an increase in process capability. The total number of defects was successfully reduced from 27 to 11, with significant decreases in the Surface 1, Trimline, Hole, and Appearance categories. Through the application of FMEA, improvement priorities can be focused on the dominant causes based on the Risk Priority Number (RPN) value. These findings prove that the integration of DMAIC and FMEA methods is effective in identifying the source of problems and providing recommendations for sustainable solutions to improve production quality. This study is expected to be a reference for companies in quality control and developing production process improvement strategies in the future.

Keywords: *Production Defects, DMAIC, FMEA, Floor Rear, Quality Improvement, Sigma Level.*