ABSTRAK

Perusahaan Jasa Pengecatan Karawang merupakan perusahaan pensupply part painting plastic Perusahaan Otomotif Cikarang. Penjaminan kualitas yang dilakukan oleh Perusahaan Jasa Pengecatan Karawang yaitu dengan melakukan evaluasi kualitas finish good tiap semester. Pada semester 2 (Juli-Desember 2020) ditemukan bahwa angka reject melebihi standar maksimum 1%. Metode yang digunakan untuk mengatasi permasalahan tersebut adalah Define, Measure, Analyze, Improve, Control (DMAIC). Tahap Define dilakukan dengan melakukan pengumpulan data jenis dan jumlah reject. Tahap measure dilakukan dengan menghitung Critical to Quality (CtQ), Defect per Opportunity (DPO) sebelum improvement, dan Defect per Million Opportunity (DPMO) sebelum improvement. Terdapat 5 CtQ yaitu Absorb, Sagging, Scratch, Popping, dan Bintik. DPO sebelum improvement berada di atas standar maksimum 0,002. DPMO sebelum improve berada di atas standar maksimum 2000. Tahap Analyze dilakukan dengan mencari penyebab dominan dan akar masalah. Diagram Pareto menunjukkan penyebab dominan reject yaitu scratch (49%). Analisis dengan diagram Fault Tree Analysis (FTA) menunjukkan akar massalah dari reject scratch yaitu depresiasi fungsi kereta karena aktivitas yang kontinyu. Tahap Improvement dilakukan dengan melakukan perbaikan desain kereta, dimana hasil improvement menunjukkan reject scratch turun menjadi 0 pcs pada Maret-Juni 2021. Penurunan reject scratch selaras dengan penurunan total reject menjadi di bawah standar maksimum 1%. Nilai DPO menjadi turun di bawah 0,02 dan nilai DPMO turun di bawah 2000. Tahap Control dilakukan dengan standarisasi desain kereta dalam Resume Hearing Kereta.

Kata kunci : DMAIC, DPO, DPMO, Diagram Pareto, FTA.

ABSTRACT

Karawang Painting Service Company is the supplier of painting plastic part of Cikarang Automotive Industry. There is quality evaluation every semester to guarantee the quality of the finished product. The evaluation result on second semester (July-December 2020) shows that the rejection value is over than maximum standard i.e.1%. The method to solve this problem is Define, Measure, Analyze, Improve, Control (DMAIC). The activity of Define step are collecting the kinds and the amount of rejection data. The activity of Measure step are calculating Critical to Quality (CTQ), Defect per Opportunity (DPO) before improvement, and Defect per Million Opportunity (DPMO) before improvement. There are 5 CTQ i.e. absorb, sagging, popping, scratch, and freckle. The DPO value before improvement is over than maximum standard 0,002. The DPMO value before improvement is over than maximum standard 2000. The activity of step analysis are analyzing the dominant cause and the root cause. Pareto diagram shows that the dominant cause of the high rejection value is scratch (49%). Fault Tree Analysis (FTA) shows that the root cause of scratch is the depreciation of packaging function as the effect of continue activity. The activity of Improvement step is improving the packaging design. The result of improvement activity shows that the value of scratch rejection decreases to zero pcs on March-June 2021. The reduction of scratch rejection value in line with the reduction of total rejection i.e. less than 1% after improvement. The DPO value decreases to less than 0,002 and the DPMO value decreases to less than 2000. The activity of Control step is standardization of packaging design in Packaging Hearing Resume.

***Key word** : DMAIC, DPO, DPMO, Pareto Diagram, FTA.*