ABSTRAK

Penelitian ini membahas tentang studi kasus dalam mengidentifikasi *defect product*, penilaian risiko dan pengendalian kualitas pada proses produksi *painting top coat line* pada PT INKOASKU. Perusahaan yang bergerak dibidang manufaktur pembuatan *steel wheel* yang hasil produksinya dikirim ke perusahaan dalam dan luar negeri. Total *defect* sebesar 1677 pcs yang terdiri dari *defect* cat meler 203 pcs, cat tipis 111 pcs, cat kotor 806 pcs, *crater 436* pcs dan *others 94* pcs. Penelitian ini berfokus pada *defect* cat kotor yang menjadi *defect* terbanyak yaitu 48% dengan nilai RPN tertinggi yaitu 320. Pengamatan lapangan dan data terdahulu digunakan sebagai metode pengumpulan data. Berdasarkan hasil penelitian, metode DMAIC (*Define, Measure, Analyze, Improve, Control*) bisa diterapkan dalam mengidentifikasi *defect product* cat kotor yang menyebabkan proses *rework* di *painting top caot line*. Sehingga dari hasil analisis tersebut dapat memberikan usulan pengendalian kualitas terhadap *defect product* cat kotor yang terjadi. Dari hasil perbaikan yang sudah dijalankan menggunakan metode DMAIC (*Define, Measure, Analyze, Improve, Control)* dan FMEA *(Failure Mode Effect Analysis)* yaitu dengan pengadaan suku cadang, penggantian *air cap* secara berkala dan *wrapping body gun*, *defect* cat kotor mengalami penurunan yang awalnya adalah 48% menjadi 46% dan nilai sigma meningkat yang awalnya 4,98 menjadi 5,07.

Kata Kunci: *defect*, penilaian risiko, *improvement*, DMAIC, *Sig Sigma,* FMEA

ABSTRACT

This study discusses case studies in identifying product defects, risk assessment and quality control in the painting top coat line production process at PT INKOASKU. The company is engaged in manufacturing the manufacture of steel wheels whose products are sent to domestic and foreign companies. The total defect was 1677 pcs, consisting of 203 pcs runny paint, 111 thin paint, 806 dirty paint, 436 crater and 94 others. This study focuses on dirty paint defects which are the most defect, namely 48% with the highest RPN value of 320. Field observations and previous data are used as data collection methods. Based on the results of the research, the DMAIC (Define, Measure, Analyze, Improve, Control) method can be applied in identifying dirty paint product defects that cause the rework process in the painting top paint line. So that from the results of this analysis can provide quality control proposals against dirty paint product defects that occur. From the results of repairs that have been carried out using the DMAIC (Define, Measure, Analyze, Improve, Control) and FMEA (Failure Mode Effect Analysis) methods, namely by procuring spare parts, replacing air caps regularly and wrapping body guns, dirty paint defects have decreased significantly. initially was 48% to 46% and the sigma value increased from 4.98 to 5.07.

Keywords: defect, risk assessment, improvement, DMAIC, *Sig Sigma*, FMEA