

ABSTRAK

PT Cipta Oggi Furindo merupakan perusahaan manufaktur furnitur yang menerapkan sistem pengiriman produk dalam bentuk komponen. Permasalahan yang dihadapi adalah tingginya jumlah *component and hardware requisition* (CHR), yaitu permintaan penggantian komponen atau *hardware* akibat kerusakan, ketidaksesuaian, atau ketidaklengkapan produk yang diterima pelanggan. Rata-rata CHR mencapai 61 unit per bulan dan masih melebihi batas toleransi perusahaan. Penelitian ini bertujuan mengidentifikasi penyebab CHR, menentukan prioritas risiko kegagalan, serta merumuskan strategi perbaikan yang efektif dan inovatif. Metode yang digunakan adalah *Failure Mode and Effects Analysis* (FMEA) untuk menentukan prioritas risiko berdasarkan *Risk Priority Number* (RPN) dan *Theory of Inventive Problem Solving* (TRIZ) untuk menyusun solusi perbaikan. Hasil penelitian menunjukkan bahwa CHR disebabkan oleh kurangnya ketelitian operator, benturan saat distribusi, penggunaan palet rusak, pengemasan *hardware* yang tidak dipisahkan, serta tumpukan produk yang melebihi batas aman. CHR dengan nilai RPN tertinggi adalah *broken component*, *missing component*, *broken hardware*, *missing hardware*, dan *broken mirror*. Usulan perbaikan yang dihasilkan meliputi penggunaan *foam* dan *bubble wrap*, penerapan *checklist*, perawatan palet, penggunaan timbangan, pemisahan *hardware*, serta pengawasan batas maksimum tumpukan produk. Penelitian ini mendukung pencapaian *Sustainable Development Goals* (SDGs) nomor 9 (*Industry, Innovation and Infrastructure*) melalui peningkatan kualitas proses dan penerapan inovasi dalam industri manufaktur.

Kata Kunci: *Component and hardware requisition*, FMEA, TRIZ, *Risk Priority Number*, SDGs 9.

ABSTRACT

PT Cipta Oggi Furindo is a furniture manufacturing company that delivers its products in component form. The company faces a high number of Component and Hardware Requisitions (CHR), which are requests for replacement components or hardware due to damage, nonconformities, or incomplete products received by customers. The average number of CHR reaches 61 cases per month, exceeding the company's tolerance limit. This study aims to identify the causes of CHR, determine the priority of failure risks, and formulate effective and innovative improvement strategies. The methods employed are Failure Mode and Effects Analysis (FMEA) to prioritize risks based on the Risk Priority Number (RPN) and the Theory of Inventive Problem Solving (TRIZ) to develop improvement solutions. The results indicate that CHR is caused by operator negligence, impacts during distribution, damaged pallets, improper hardware packaging, and product stacking that exceeds the safe limit. The CHR categories with the highest RPN values are broken components, missing components, broken hardware, missing hardware, and broken mirrors. The proposed improvement strategies include the use of foam and bubble wrap, implementation of checklists, pallet maintenance, the use of weighing scales, hardware segregation, and monitoring of maximum product stacking limits. This study supports the achievement of Sustainable Development Goal (SDG) 9 (Industry, Innovation and Infrastructure) through process quality improvement and the implementation of innovation in the manufacturing industry.

Keywords: *Component and hardware requisition (CHR), Failure Mode and Effects Analysis (FMEA), Theory of Inventive Problem Solving (TRIZ), Furniture Industry, Risk Analysis.*