

## ABSTRAK

PT. Sumber Mas Indah Plywood adalah perusahaan yang bergerak dibidang *Manufacturing* kayu lapis, pada periode September 2018 – Februari 2019 *product plywood thin panel* sering mengalami *defect product* melebihi batas toleransi. Berdasarkan permasalahan ini Bagaimana Upaya pengendalian kualitas untuk mengurangi *defect product plywood thin panel* dengan metode six sigma DMAI di PT. Sumber Mas Indah Plywood. Sebagai upaya untuk mengurangi jumlah defect langkah awal perlu dilakukan perhitungan DPMO, Sigma, COPQ, analisis akar penyebab masalah dengan Fishbone, serta FMEA, sehingga akar penyebab meningkat. Jumlah *defect* diketahui presentase defect rata-rata perbulan 7,31% melebihi batas toleransi perusahaan yang sebesar 5%. Hasil analisis diketahui jenis defect product plywood thin panel yaitu *defect core tumpuk*, *defect fase/back pressmark*, dan *defect core renggang*, sedangkan nilai DPMO atribut sebesar 24.375 dengan nilai sigma 2,476,serta FMEA diperoleh nilai Risk Priority Number (RPN) tertinggi yaitu 648. Sebagai rekomendasi untuk mengurangi defect salah satunya dilakukan training kepada pekerja serta penjadwalan preventif maintenance.

**Kata kunci** : DMAI, DPMO, sigma, COPQ, fishbone, FMEA

## **ABSTRACT**

PT. Sumber Mas Indah Plywood is a company engaged in manufacturing plywood, in the period September 2018 - February 2019 thin panel plywood products often experience defect products that exceed tolerance limits. Based on this problem How the efforts to control quality to reduce the defect of thin panel plywood products with the DMAI six sigma method at PT. Sumber Mas Indah Plywood. In an effort to reduce the number of defects the initial step needs to be done by calculating DPMO, Sigma, COPQ, analysis of the root causes of problems with Fishbone, and FMEA, so that the root causes increase. The number of defects known to the percentage of defects on average 7.31% per month exceeds the company's tolerance limit of 5%. The results of the analysis revealed that the type of thin panel plywood defect product is stacked core defect, back pressmark phase defect, and tenuous core defect, while the DPMO attribute value is 24,375 with a sigma value of 2,476, and FMEA obtained the highest Risk Priority Number (RPN) value of 648. As a recommendation to reduce defects, one of them is conducting training for workers and scheduling preventive maintenance.

***Keywords:*** DMAI, DPMO, Sigma, COPQ, Fishbone, FMEA