

ABSTRAK

PT Bisma Karang Pilang merupakan perusahaan manufaktur dibidang manufaktur yang memproduksi genteng, bata, dan loster. PT Bisma Karang Pilang terdapat aktivitas yang tidak memberikan nilai tambah, dan dampak lingkungan. Tujuan penelitian adalah menemukan jenis *waste* dominan, dampak lingkungan, dan penyebab utamanya, serta mengusulkan perbaikan supaya proses produksi yang berlangsung lebih efisien. Berdasarkan permasalahan tersebut, *Environmental Value Stream Mapping* (E-VSM) digunakan untuk mengetahui memberikan visualisasi, dan pemetaan aliran proses produksi genteng. Alat bantu lainnya, meliputi *Process Activity Mapping* (PAM), diagram pareto, dan diagram tulang ikan. Hasil penelitian menunjukkan bahwa *waste* dominan disebabkan oleh *transportation*, *waiting*, dan *defect*. Selain itu, dampak lingkungan dalam proses produksi genteng disebabkan oleh tinggi penggunaan listrik, transportasi, dan gas. Usulan perbaikan dilakukan dengan melakukan penerapan budaya kerja 5R, meliputi ringkas (*seiri*), rapi (*seiton*), resik (*seiso*), rawat (*seiketsu*), dan rajin (*shitsuke*). Berdasarkan penelitian, setelah perbaikan dilakukan total aktivitas dari 61 aktivitas dengan total waktu sebesar 84024,68 detik menjadi 50 aktivitas dengan total waktu sebesar 6478045 detik. Selain itu, penurunan dampak lingkungan terhadap *energy waste* mengalami penurunan sebesar 61%, dan emisi mengalami penurunan sebesar 24%. Hal ini, menunjukkan peningkatan efisiensi dalam proses produksi genteng untuk mengurangi pemborosan waktu, aktivitas, dan dampak lingkungan yang sejalan dengan tujuan *Sustainable Development Goals* (SDGs) 9 terhadap *Industry, Innovation, and Infrastructure*. Selain itu, penelitian juga mendukung *Sustainable Development Goals* (SDGs) 12 melalui pengurangan dampak lingkungan, *waste*, efisiensi sumber daya.

Kata Kunci: Pemetaan Aliran, Pemborosan, Dampak Lingkungan, SDGs

ABSTRACT

PT Bisma Karang Pilang is a manufacturing company that produces roof tiles, bricks, and louvers. PT Bisma Karang Pilang has activities that do not provide added value and have environmental impacts. The purpose of this study is to find the dominant types of waste, environmental impacts, and their main causes, and to propose improvements so that the ongoing production process is more efficient. Based on these problems, Environmental Value Stream Mapping (E-VSM) is used to find out, provide visualization, and map the flow of the roof tile production process. Other tools include Process Activity Mapping (PAM), Pareto diagrams, and fishbone diagrams. The results of the study indicate that the dominant waste is caused by transportation, waiting, and defects. In addition, the environmental impact in the roof tile production process is caused by high use of electricity, transportation, and gas. Proposed improvements are made by implementing the 5R work culture, including neatness (seiri), neatness (seiton), cleanliness (seiso), care (seiketsu), and diligence (shitsuke). Based on the research, after the improvements, the total number of activities decreased from 61 activities with a total time of 84,024.68 seconds to 50 activities with a total time of 64,780.45 seconds. Furthermore, the environmental impact of energy waste decreased by 61%, and emissions decreased by 24%. This demonstrates increased efficiency in the roof tile production process, reducing wasted time, activities, and environmental impact, which aligns with Sustainable Development Goal (SDG) 9 on Industry, Innovation, and Infrastructure. Furthermore, the research also supports Sustainable Development Goal (SDG) 12 through reduced environmental impact, waste, and resource efficiency.

Keywords: *Flow Mapping, Waste, Environmental Impact, SDGs*