

PENERAPAN *LEAN MANUFACTURING* UNTUK MENGURANGI PEMBOROSAN (*WASTE*) DALAM LINI ASSEMBLY DI PT. XYZ

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ABSTRAK

PT. XYZ adalah salah satu perusahaan yang bergerak di bidang manufaktur khususnya kursi mobil. Dalam proses produksi pada unit assembly hasil output yang dihasilkan masih dibawah target, perusahaan ingin mengurangi pemborosan (*waste*) yang terjadi dalam proses assembly, akan dilakukan dengan pendekatan *Lean Manufacturing* dan bantuan tools analisis seperti *Value Stream Analysis Tools*, *Value Stream Mapping*, *Process Activity Mapping*, *Failure Mode Effect Analysis*, dan *5 Why's Analysis*. Setelah itu membuat simulasi dengan software ProModel. Berdasarkan hasil penelitian dapat memperlihatkan usulan perbaikan yang telah diajukan, bisa mengurangi waktu assembly pada PT. XYZ sebesar 160,03 detik atau 2,667 menit dari yang sebelumnya 666,42 detik menjadi 506.388 detik dan peningkatan output produksi sebesar 21%.

Kata Kunci: *Lean Manufacture, Waste, Value Stream Analysis Tools, Value Stream Mapping, Process Activity Mapping, Failure Mode Effect Analysis, dan 5 Why's Analysis, ProModel.*

**IMPLEMENTATION OF LEAN MANUFACTURING TO REDUCE WASTE
ON THE ASSEMBLY LINE AT PT. XYZ**

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ABSTRACT

PT. XYZ is a company that operates in the manufacturing sector, especially car seats. In the production process at the assembly unit, the output produced is still below the target, the company wants to reduce waste that occurs in the assembly process, this will be done with a Lean Manufacturing approach and the help of analysis tools such as Value Stream Analysis Tools, Value Stream Mapping, Process Activity Mapping, Failure Mode Effect Analysis, and 5 Why's Analysis. After that, make a simulation with ProModel software. Based on the research results, it can be seen that the proposed improvements that have been submitted can reduce assembly time at PT. XYZ was 160.03 seconds or 2,667 minutes from the previous 666.42 seconds to 506,388 seconds and increased production output by 21%.

Keywords: Lean Manufacture, Waste, Value Stream Analysis Tools, Value Stream Mapping, Process Activity Mapping, Failure Mode Effect Analysis, dan 5 Why's Analysis, ProModel.