

PERANCANGAN *LEAN MANUFACTURING* PADA PROSES PRODUKSI KARET REMAH DENGAN METODE *VALUE STREAM MAPPING* (Studi di PT. Hevea MK II Palembang)

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INTISARI

PT. Hevea MK II Palembang merupakan perusahaan pengolah karet ekspor yang berlokasi di Kecamatan Gandus, Palembang, Sumatera Selatan. Proses produksi yang ada di PT. Hevea MK II masih kurang efektif dan efisien karena terdapat pemborosan. Penelitian ini bertujuan untuk mengidentifikasi pemborosan proses produksi di PT. Hevea MK II Palembang, menyusun perbaikan untuk menghilangkan pemborosan, dan merencanakan *proposed value stream mapp* yang mampu menurunkan waktu dan biaya proses produksi. Permasalahan perusahaan dapat diselesaikan menggunakan *lean manufacturing* dengan metode *value stream mapping*. Identifikasi penyebab pemborosan menggunakan *root cause analysis* (RCA), kemudian *process activity mapping* (PAM) digunakan untuk mengidentifikasi kegiatan yang termasuk *value added* (VA), *non value added* (NVA), *non value added but necessary* (NNVA). Hasil tersebut akan dipetakan menggunakan *value stream mapping*.

Berdasarkan hasil analisis, menunjukkan pemborosan produksi karet remah yaitu (1) *defect*, berupa mooney viscosity yang tidak sesuai spesifikasi dan bandela karet yang terkontaminasi, (2) *waiting* akibat proses produksi berhenti, (3) *transportation*, yaitu stasiun kerja berjauhan, (4) *unnecessary inventory* pada bahan baku *slab* karet, *WIP blanket*, dan *finished product*. Rencana perbaikan yang dilakukan yaitu membuat kontrak kerjasama dengan *supplier*, melakukan uji koagulan dan pengujian air pencucian, membuat peraturan yang tegas untuk pekerja melakukan *maintenance* dan memperbaiki mesin produksi, serta meningkatkan kapasitas produksi. lalu, *proposed value stream mapp* mampu menurunkan waktu pada kegiatan *value added* sebesar 4500 detik dan *non value added* sebesar 65,22 detik

Kata kunci : *Value stream mapping*, *Lean manufacturing*, Pemborosan, *Process activity mapping*, *Root cause analysis*.

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**LEAN MANUFACTURING DESIGN IN CRUMB RUBBER
PRODUCTION PROCESS WITH VALUE STREAM MAPPING
(Study in PT. Hevea MK II Palembang)**

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ABSTRACT

PT. Hevea MK II Palembang is a crumb rubber processing company which is located in Gandus district, Palembang, South Sumatera. Production process in PT. Hevea MK II Palembang is still ineffective and inefficient due to wastes. The research aimed to identify the wastes of production process in PT. Hevea MK II Palembang, to arrange the improvement to eliminate the waste, and design proposed value stream mapp which is able to reduce time and production process time. The company's problem can be solved by using lean manufacturing with value stream mapping. Identifying the cause waste is using root cause analysis (RCA), then process activity mapping is used to identify activities whether value added (VA), non value added (NVA), non value added but necessary (NNVA). Those result would be mapped using value stream mapping.

Regarding to result analysis, it showed that wastes in crumb rubber production are (1) defect, mooney viscosity is not proper with specification, and crumb bale is contaminated, (2) waiting caused by production process stoped, (3) transportation, workstasiun is far away, (4) unncesarry inventory, in crumb slab as raw material, WIP blanket, and finished product. The planning improvement is having cooperation contract with *supplier*, testing coagulant and water, making strict rules for the worker, having maintenance and fixing production machines, Moreover increasing the production capacity. In addition, proposed value stream mapp could decrease value added time to 4500 s non value added time to 65,22 s.

Keywords : *Value stream mapping, Lean manufacturing, Process activity mapping, Root cause analysis, Waste.*

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