ABSTRAK

KEMUNGKINAN PENERAPAN SISTEM *JUST IN TIME* PRODUKSI PADA PERUSAHAAN MANUFAKTUR
Studi Kasus pada PT Naga Semut Kebumen

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Penelitian ini bertujuan untuk mengetahui apakah PT Naga Semut Kebumen memungkinkan untuk menerapkan sistem *Just In Time* produksi dan mengetahui besarnya manfaat ekonomi berupa penghematan biaya produksi yang dapat diperoleh jika PT Naga Semut menerapkan sistem *Just In Time* produksi.

Teknik pengumpulan data yang digunakan adalah wawancara dan dokumentasi. Teknik analisis data untuk menjawab permasalahan pertama dilakukan dengan membandingkan kondisi nyata perusahaan dengan syarat penerapan JIT, yang meliputi organisasi pabrik, pelatihan/tim/ketrampilan, membentuk aliran/penyederhanaan, *kanban pull system*, visibilitas/pengendalian visual, eliminasi kemacetan *(bottleneck)*, ukuran lot kecil dan pengurangan waktu *set up*, *Total Productive Maintenance (TPM)*, kemampunan proses, *Statistical Process Control (SPC)*, dan perbaikan berkesinambungan, pemasok. Masalah kedua dianalisis dengan menggunakan rumus *Manufacturing Cycle Efficiency* (MCE).

Dari hasil penelitian diketahui bahwa dari sepuluh syarat JIT yang dianalisis, masih ada enam syarat yang belum dapat diterapkan yaitu organisasi pabrik, pelatihan/tim/ketrampilan, membentuk aliran/penyederhanaan, *kanban pull system*, eliminasi kemacetan, ukuran lot kecil dan pengurangan waktu *set up*. Di masa datang, hanya syarat pembentukan aliran/penyederhaan dan eliminasi kemacetan yang mungkin diterapkan. Hasil analisis tersebut membuktikan bahwa PT Naga Semut tidak memungkinkan untuk menerapkan sistem JIT produksi. Perhitungan MCE sebesar 59,32% menunjukkan bahwa dari keseluruhan kegiatan produksi masih mengandung aktivitas tidak bernilai tambah sebesar 40,68%. Jika PT Naga Semut menerapkan sistem JIT produksi, penghematan biaya produksi yang dapat diperoleh adalah sebanyak Rp 169.572.258,84.

ABSTRACT

THE POSSIBILITY OF JUST IN TIME PRODUCTION SYSTEM APPLICATION IN A MANUFACTURING COMPANY
A Case Study at PT Naga Semut Kebumen

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This research were aimed to discover the possibility of applying JIT production system in PT Naga Semut Kebumen and to know the economic advantage in terms of cost economizing gained if PT Naga Semut applied JIT Production system.

The data gathering techniques used in this research were interview and documentation. The first problem was analyzed by comparing the company's real condition with JIT's application requirements, which consisted of factory's organization (layout), training/team/skill, flow formation/simplification, kanban pull system, visibility/visual controlling, bottleneck elimination, small lot size and set up time reduction, Total Productive Maintenance (TPM), process capacity, Statistical Process control (SPC) and sustainable repair, and suppliers. The second problem was analyzed by using Manufacturing Cycle Efficiency (MCE) formula.

Based on the result, it was known that six out of the ten requirements analyzed were not fulfilled. They were factory's organization (layout), training/team/skill, flow formation/simplification, kanban pull system, bottleneck elimination, small lot size and set up time reduction. In the future, flow formation/simplification and bottleneck elimination are the only possible things to apply. This result proved that PT Naga Semut was not possible to apply JIT production system. 59,32% from MCE calculation showed that from the total production activities, there were still 40,68% non value added activities. If PT Naga Semut applies JIT production system, the production cost economizing that could be gained by the company was as much as Rp 169.572.258,84.