

ABSTRAK

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Skripsi

Pengembangan Sistem Dokumentasi Pada Divisi Production Engineering di PT. Komatsu Undercarriage Indonesia Dengan Metode Sistem Informasi Manajemen dan Lean Manufacturing

Pada industri yang terus berkembang, divisi dalam perusahaan harus membuat keputusan akurat dan menjalankan operasi dengan cepat untuk menghadapi persaingan bisnis. Kerja sama tim dari berbagai departemen dalam organisasi diperlukan untuk kelancaran suatu proses operasional perusahaan. Dokumen digunakan untuk menyimpan informasi serta menjadi bagian administrasi untuk kelancaran suatu operasi. Permasalahan yang didapatkan berada dalam sistem aliran dokumen, meliputi banyak pekerja yang tidak bekerja sesuai proses yang terstandarisasi. Dampak yang diberikan pada akhirnya berupa permasalahan dalam pemenuhan dokumen. Berdasarkan permasalahan yang didapatkan, penelitian ini memiliki tujuan untuk mengetahui penyebab terjadinya masalah dari *document flow system*. Selain itu, akan dibuat sistem aliran pekerjaan dokumen yang harus dilakukan, usulan metode, dan peningkatan terhadap kepatuhan karyawan. Metode yang digunakan untuk melakukan penelitian ini adalah DMAIC untuk membuat struktur pengerjaan yang sistematis. Melalui DMAIC, akan dilakukan wawancara terkait internal dan eksternal. Tahapan dalam penyelesaian masalah akan menggunakan identifikasi *waste* aktivitas menggunakan *process activity mapping*, *document management system*, dan *kanban*. Hasil dari penelitian ini menunjukkan bahwa penggunaan *process activity mapping* menghasilkan pengurangan terhadap pemborosan dan peningkatan nilai tambah. Perancangan *document management system* berhasil membuat sesuai dengan kebutuhan departemen, tetapi didapati kendala berupa biaya dan skala *website*. Selanjutnya, pengembangan terakhir dilakukan implementasi menggunakan metode *kanban* yang memberikan hasil nyata berupa kenaikan pemenuhan dokumen sebanyak 8%. Kesimpulan utama yang didapatkan adalah terjadi kenaikan dalam penyelesaian dokumen menjadi 94% dibanding target 100%. Dengan menggunakan metode *kanban* dinyatakan berhasil membuat dampak terhadap proses pengerjaan di departemen. Dari hasil yang didapatkan meskipun tidak bisa mencapai target 100%, sebuah perubahan terlihat dalam aktivitas dan penyelesaian dokumen.

Kata Kunci: Pemenuhan Dokumen, *Kanban*, *Process Activity Mapping*, *Document Management System*, *Lean Manufacturing*, Sistem Informasi Manajemen, *DMAIC*, *Standard Operating Procedure*, *Fishbone*, dan *5 WHY's*

ABSTRACT

George Ariel Lumunon:

Undergraduate Thesis

Development of a Documentation System for the Production Engineering Division at PT. Komatsu Undercarriage Indonesia Using Information Management Systems and Lean Manufacturing Methods.

In a growing industry, departments within the company must make accurate decisions, and execute operations quickly to face business competition. Teamwork from various departments in the organization is required for a smooth operational process. Documents are used to store information and become an administrative part for smooth operations. The problems obtained are in the document flow system, including many workers who do not work according to standardized processes. The impact given in the end is in the form of problems in document fulfillment. Based on the problems obtained, this research aims to find out the causes of problems in the document flow system. In addition, a system will be created in the form of document workflow based on actual, proposed methods, and improvement towards employee compliance. The method used to conduct this research is DMAIC for creating a systematic work structure. Through DMAIC, internal and external related interviews will be conducted. Phases in problem solving will use waste activity identification using process activity mapping, document management system, and kanban. The results of this study show that the use of process activity mapping results in a waste reduction and an increase in added value. The design of the document management system succeeded in making it following the needs of the department, but there were constraints in areas such as cost and scale of the website. Furthermore, the last development was implemented using the kanban method which gave real results such as an increase in document fulfillment by 8%. The main conclusion obtained is that there is an increase in document completion into 94% compared to target 100%. By using the kanban method, it is stated that it has successfully made an impact on the working process in the department. From the results obtained, although it could not reach the 100% target, a change was seen in activity and document completeness.

Keywords: Document Completeness, Kanban, Process Activity Mapping, Document Management System, Lean Manufacturing, Information Management System, DMAIC, Standard Operating Procedure, Fishbone, dan 5 WHY's

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