

**DEVELOPING DATA ANALYTIC TOOLS FOR MECHANIC
COMPETENCE PROFILING IN INDONESIA LEADING HEAVY
EQUIPMENT DISTRIBUTOR**

By

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12207010

BACHELOR'S DEGREE
in

INDUSTRIAL ENGINEERING
FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGY



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Revision after the thesis Defense on 12 July 2024

STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.



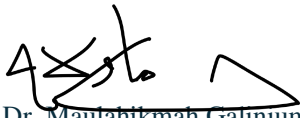
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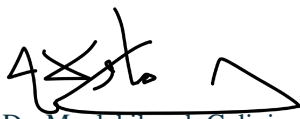


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ABSTRACT

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PT United Tractors Tbk (UT), which is a leading distributor of heavy equipment in Indonesia. Digitalization is the focus in all operational divisions, branches and sites. However, until 2024, the dashboard for monitoring and analysis purposes for mechanical competency profiling mapping is still not available. The dashboard model developed in this study is to integrate data on the achievement of mechanical competency development results, making it easier for people development management to monitor and analyze data on the status of mechanical competency development based on the results of training and assessment to describe mechanical competency profiling. This research was conducted using the Waterfall Methodology. Testing and analysis in the study include unit testing with satisfactory functional results, accuracy test reaching 100%, User Acceptance Test (UAT) with 100% results, and User Experience Questionnaire (UEQ) reaching the Excellent level. This study shows that the dashboard successfully integrates mechanic competency status data effectively, so that the data access time for analysts is reduced from 76 seconds to 11 seconds. This study recommends further implementation and development as part of UT's digitalization program, so that data analysis for profiling and evaluation of mechanical competencies becomes faster so that it can support the company's vision.

Keywords: Digitalisasi, Mechanic competency profiling, Dashboard, Waterfall Methodology, Data integration.

ABSTRAK

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SWISS GERMAN UNIVERSITY

PT United Tractors Tbk (UT), yang merupakan distributor alat berat terkemuka di Indonesia. Digitalisasi menjadi fokus utama di semua divisi operasional, cabang dan site. Namun hingga tahun 2024 ini, *dashboard* untuk tujuan monitoring dan analisa untuk pemetaan profiling kompetensi mekanik masih belum tersedia. Model *dashbord* yang dikembangkan dalam penelitian ini untuk mengintegrasikan data pencapaian hasil pengembangan kompetensi mekanik, memudahkan manajemen *people development* dalam memonitor dan analisis data status pengembangan kompetensi mekanik berdasarkan hasil *training* dan *assessment* untuk menggambarkan profiling kompetensi mekanik. Penelitian ini dilakukan dengan menggunakan Metodologi *Waterfall*. Pengujian dan analisis dalam penelitian meliputi unit testing dengan hasil fungsi yang memuaskan, tes akurasi mencapai 100%, *User Acceptance Test (UAT)* dengan hasil 100%, dan *User Experience Questionare (UEQ)* mencapai level *Excellent*. Penelitian ini menunjukkan bahwa dashboard berhasil mengintegrasikan data status kompetensi mekanik dengan efektif, sehingga waktu akses data bagi analis berkurang dari 76 detik menjadi 11 detik. Penelitian ini merekomendasikan implementasi dan pengembangan lebih lanjut sebagai bagian dari program digitalisasi UT, sehingga analisis data untuk profiling dan evaluasi kompetensi mekanik menjadi lebih cepat sehingga bisa mendukung visi perusahaan.

Keywords: Digitaslisasi, Profiling Kompetensi Mekanik, Dashboard, Metodologi Waterfall, Integrasi data.

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LEMBAR PERSEMBAHAN

Saya dedikasikan thesis ini kepada orang tua, istri, anak-anak, rekan-rekan, dan dosen yang telah mendukung studi saya hingga saat ini.

PENGHARGAAN

Dengan penuh rasa syukur, saya ucapkan terima kasih kepada seluruh komite atas dukungan dan interaksi yang diberikan selama proses pengerjaan tesis ini. Bimbingan dan motivasi yang diberikan sangat berharga. Terima kasih khusus saya sampaikan kepada Bapak Dr. Maulahikmah Galinium, S.Kom, M.Sc, sebagai *Advisor* yang telah banyak membimbing dan mengarahkan tesis saya hingga layak disajikan. Ucapan terima kasih juga saya sampaikan kepada Bapak Ivan Kurniawan, S.T., B.Eng., M.T., M.B.A, sebagai *Co-Advisor* Tesis atas arahan dan petunjuknya dalam membimbing isi materi tesis saya.

Selama menjalani perkuliahan dalam *Bridging* Program ini, saya mendapatkan pengalaman belajar yang sangat bermanfaat dan bermakna melalui kurikulum dan program berkualitas yang bertaraf internasional. Semoga ilmu yang saya peroleh dapat menjadi bekal untuk meningkatkan potensi diri sehingga lebih bermanfaat bagi keluarga, perusahaan, bangsa, dan negara.

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