

**DEVELOPMENT OF A BUSINESS INTELLIGENCE DASHBOARD FOR
MONITORING ROTABLE COMPONENT AT PT KALIMANTAN PRIMA
PERSADA JOBSITE BDMA**

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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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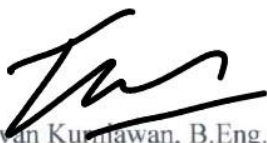


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ABSTRACT

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In heavy equipment maintenance, effective monitoring of rotatable components is essential to support component replacement programs. Existing monitoring practices rely on data with limited parameters and weekly information distribution, resulting in delays and limited access. This study aims to develop a rotatable component monitoring dashboard based on Google Looker Studio to improve monitoring efficiency and support planning processes. The dashboard development adopts a business intelligence approach to integrate, visualize, and systematically analyze data, thereby generating information that is easy to understand. The system was developed using Waterfall methodology, consisting of requirement analysis, system design, implementation, and testing. The results indicate that the developed dashboard presents monitoring information more comprehensively and efficiently. The time required to access detailed rotatable component information was reduced from 8 minutes to less than 2 minutes with the dashboard. Additionally, the preparation time for the monthly rotatable component overhaul plan decreased from 95 minutes to 43 minutes. System evaluation shows a high level of user acceptance and satisfaction, as all User Acceptance Testing scenarios were successfully completed. Furthermore, the User Experience Questionnaire results indicate that all dimensions achieved mean values above 0,8, with the highest mean score obtained in the Attractiveness dimension at 2,112.

Keywords: Rotable component, Overhaul, Business intelligence, Dashboard, Google Looker Studio.

ABSTRAK

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Dalam perawatan alat berat, monitoring rotatable component memiliki peran penting untuk mendukung program penggantian komponen. Proses monitoring menggunakan data dengan parameter terbatas serta distribusi informasi secara mingguan menyebabkan keterlambatan dan keterbatasan akses informasi yang dibutuhkan. Penelitian ini bertujuan mengembangkan dashboard monitoring rotatable component berbasis Google Looker Studio guna meningkatkan efisiensi monitoring serta mendukung proses perencanaan penggantian komponen. Pengembangan dashboard menggunakan pendekatan business intelligence untuk mengintegrasikan, memvisualisasikan, dan menganalisis data secara sistematis sehingga menghasilkan informasi yang mudah dipahami. Metode pengembangan sistem yang digunakan adalah Waterfall Methodology, yang meliputi tahapan analisis kebutuhan, perancangan, implementasi, dan pengujian sistem. Hasil penelitian menunjukkan bahwa dashboard yang dikembangkan mampu menyajikan informasi monitoring secara lebih lengkap dan efisien. Hal ini dibuktikan dengan penurunan durasi akses informasi detail component dari 8 menit pada metode konvensional menjadi kurang dari 2 menit menggunakan dashboard. Selain itu, waktu penyusunan monthly plan overhaul rotatable component berhasil diturunkan dari 95 menit menjadi 43 menit. Hasil pengujian menunjukkan tingkat penerimaan dan kepuasan pengguna yang baik, dimana seluruh skenario User Acceptance Testing dapat diselesaikan dengan baik, serta hasil User Experience Questionnaire menunjukkan seluruh dimensi memiliki nilai mean di atas 0,8, dengan nilai tertinggi pada dimensi Attractiveness sebesar 2,112.

Keywords: Rotatable component, Overhaul, Business intelligence, Dashboard, Google Looker Studio.



LEMBAR PERSEMBAHAN

Karya ini saya dedikasikan kepada orang tua, rekan kerja, serta para dosen yang telah membagikan ilmu, arahan, serta bimbingan sehingga penelitian ini dapat diselesaikan dengan baik.

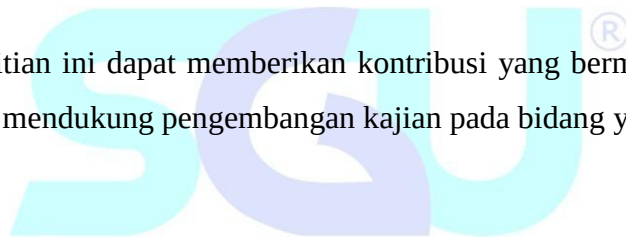


PENGHARGAAN

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