

**ANALYSIS AND DESIGN OF A BUSINESS INTELLIGENCE-BASED SALES
AND ACCOUNTS RECEIVABLE MONITORING DASHBOARD AS A
PERFORMANCE EVALUATION TOOL AT PT BINA PERTIWI SITE
SANGATTA**

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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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ABSTRACT

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PT PT Bina Pertiwi Site Sangatta is a company engaged in heavy equipment distribution and after-sales services that routinely monitors Sales and Accounts Receivable (AR) Key Performance Indicators (KPIs) as part of performance evaluation. However, the existing KPI monitoring process is still conducted through manual data extraction from the SAP system and spreadsheet processing, resulting in time-consuming reporting, lack of data integration, and limited real-time information availability to support management decision-making. This study aims to analyze the current KPI monitoring process and design a Business Intelligence (BI) dashboard as a more effective and efficient performance evaluation tool. This research applies the Six Sigma approach using the Define, Measure, Analyze, Improve, and Control (DMAIC) methodology. The research data were obtained from the company's SAP system, processed using the Extract, Transform, Load (ETL) method, and visualized using Microsoft Power BI. The results show that the average KPI reporting preparation time under the current condition is 32.5 minutes. After implementing the Business Intelligence dashboard, the reporting preparation time decreased to 8.2 minutes, resulting in an efficiency improvement of 80.5%. In addition, the developed dashboard provides integrated, visual, and interactive KPI Sales and Aging Accounts Receivable information, improving information accessibility and facilitating faster identification of Accounts Receivable exceeding 90 days. Therefore, the proposed Business Intelligence dashboard has proven to improve the efficiency of the KPI monitoring process, enhance the effectiveness of Accounts Receivable monitoring, and support faster, more accurate, and data-driven management decision-making at PT Bina Pertiwi Site Sangatta.

Keywords: Business Intelligence, Dashboard, KPI Sales, Accounts Receivable, DMAIC, Microsoft Power BI

ABSTRAK

ANALYSIS AND DESIGN OF A BUSINESS INTELLIGENCE-BASED SALES AND ACCOUNTS RECEIVABLE MONITORING DASHBOARD AS A PERFORMANCE EVALUATION TOOL AT PT BINA PERTIWI SITE SANGATTA

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PT Bina Pertiwi Site Sangatta merupakan perusahaan yang bergerak di bidang distribusi alat berat dan layanan purna jual yang secara rutin melakukan pemantauan Key Performance Indicator (KPI) Sales dan Accounts Receivable (AR) sebagai bagian dari evaluasi kinerja. Namun, proses monitoring KPI yang berjalan saat ini masih dilakukan melalui ekstraksi data secara manual dari sistem SAP dan pengolahan menggunakan spreadsheet, sehingga menyebabkan waktu penyusunan laporan yang lama, tidak terintegrasi, dan belum mampu menyediakan informasi secara real-time untuk mendukung pengambilan keputusan manajemen. Penelitian ini bertujuan untuk menganalisis kondisi proses monitoring KPI yang berjalan saat ini serta merancang dashboard Business Intelligence (BI) sebagai alat bantu evaluasi kinerja yang lebih efektif dan efisien.

Metode penelitian yang digunakan adalah pendekatan Six Sigma dengan tahapan Define, Measure, Analyze, Improve, dan Control (DMAIC). Data penelitian diperoleh dari sistem SAP perusahaan yang kemudian diproses menggunakan metode Extract, Transform, Load (ETL) dan divisualisasikan menggunakan Microsoft Power BI. Hasil penelitian menunjukkan bahwa waktu rata-rata penyusunan laporan KPI pada kondisi awal adalah 32,5 menit. Setelah dilakukan perancangan dashboard Business Intelligence, waktu penyusunan laporan menurun menjadi 8,2 menit, sehingga terjadi peningkatan efisiensi sebesar 80,5%. Selain itu, dashboard yang dirancang mampu menyajikan informasi KPI Sales dan Aging Accounts Receivable secara terintegrasi, visual, dan interaktif, sehingga meningkatkan kecepatan akses informasi dan mempermudah identifikasi Accounts Receivable yang melebihi 90 hari.

Dengan demikian, implementasi dashboard Business Intelligence yang diusulkan terbukti mampu meningkatkan efisiensi proses monitoring KPI, meningkatkan efektivitas pemantauan Accounts Receivable, serta mendukung pengambilan keputusan manajemen secara lebih cepat, akurat, dan berbasis data di PT Bina Pertiwi Site Sangatta.

Kata kunci: Business Intelligence, Dashboard, KPI Sales, Accounts Receivable, DMAIC, Microsoft Power BI

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