

ABSTRAK

Pengelolaan persediaan bahan kimia pada PT. Chemindo Ekatama masih dilakukan secara manual dan belum terintegrasi antar bagian, sehingga menyebabkan keterlambatan pembaruan data stok, potensi ketidaksesuaian data stok, serta keterbatasan dalam proses monitoring operasional. Penelitian ini bertujuan untuk mengimplementasikan sistem *Enterprise Resource Planning* (ERP) berbasis Odoo guna mendukung integrasi proses pengadaan dan pengelolaan persediaan serta meningkatkan kesesuaian data stok dan kecepatan pembaruan data stok. Metode penelitian menggunakan pendekatan *Water Scrum Fall* yang terdiri dari tahap analisis kebutuhan, perancangan sistem, implementasi, integrasi, dan pengujian sistem. Implementasi dilakukan menggunakan Odoo versi 17 pada modul *Inventory* dan *Purchase* dengan penambahan fitur *Quality Control* (QC), validasi penerimaan barang, *Dashboard* operasional, serta pengaturan hak akses berbasis peran. Pengujian sistem dilakukan menggunakan *Black Box Testing*, pengujian integrasi sistem, dan *User Acceptance Testing* (UAT). Hasil penelitian menunjukkan bahwa sistem mampu mendukung pembaruan data stok pada saat transaksi divalidasi, mengurangi potensi kesalahan pencatatan, serta menyediakan informasi operasional secara lebih terintegrasi. Hasil evaluasi pengguna menunjukkan nilai rata-rata sebesar 4,51 dari skala 5 dengan tingkat penerimaan pengguna sebesar 90,29%, yang menunjukkan bahwa sistem diterima dengan baik oleh pengguna dari aspek kemudahan penggunaan dan kemanfaatan sistem.

Kata Kunci: *Black Box Testing*, ERP Odoo, Persediaan, UAT, *Water Scrum Fall*

ABSTRACT

Inventory management of chemical products at PT. Chemindo Ekatama was previously conducted manually and was not integrated across departments, resulting in delayed information updates, potential stock data inconsistencies, and limitations in operational monitoring. This study aims to implement an Odoo-based Enterprise Resource Planning (ERP) system to support the integration of procurement and Inventory management processes while improving stock data consistency and the speed of information updates. This study employed the Water Scrum Fall approach, which consists of requirement analysis, system design, implementation, integration, and system testing stages. The implementation utilized Odoo version 17 with the Inventory and Purchase modules, including additional features such as Quality Control (QC), goods receipt validation, operational Dashboards, and role-based access control configuration. System evaluation was conducted using integration testing, Black Box Testing, and User Acceptance Testing (UAT). The results indicate that the implemented system supports stock data updates during transaction validation, reduces the potential for recording errors, and provides more integrated operational information. User evaluation results obtained an average score of 4.51 out of 5 with a user acceptance rate of 90.29%, indicating that the system was positively accepted in terms of ease of use and perceived usefulness.

Keywords: *Black Box Testing*, ERP Odoo, Inventory, UAT, *Water Scrum Fall*