

ABSTRAK

Penelitian ini bertujuan meningkatkan efisiensi operasional PT Karase melalui pengembangan aplikasi manajemen stok opname. Permasalahan utama adalah proses monitoring stok yang masih menggunakan *spreadsheet*, sehingga rentan kesalahan pencatatan, keterlambatan informasi, dan lambatnya respons operasional. Untuk mengatasi hal tersebut, dikembangkan aplikasi yang mendukung pemantauan dan perhitungan stok secara real-time serta terintegrasi dengan pengadaan barang guna menciptakan sistem persediaan yang lebih terstruktur dan akurat. Metodologi meliputi perumusan masalah, pengumpulan data melalui observasi dan wawancara, serta pengembangan sistem melalui analisis kebutuhan fungsional dan non-fungsional, perancangan dengan *Unified Modeling Language* (UML), dan desain antarmuka yang intuitif. Fitur utama mencakup pencatatan stok, stok opname berkala, notifikasi stok minimum, permintaan pembelian, dan pelacakan riwayat transaksi. Sistem dikembangkan menggunakan Laravel, Supabase, dan *Bootstrap*. Hasil penelitian ini berupa prototipe sistem informasi yang menyajikan data stok secara akurat dan terkini, mendukung pengambilan keputusan berbasis data, serta mengurangi ketergantungan pada proses manual. Implementasi awal menunjukkan potensi peningkatan efisiensi operasional melalui otomatisasi dan monitoring yang lebih cepat dan andal. Penelitian ini turut berkontribusi pada penerapan teknologi informasi dalam manajemen inventori perusahaan manufaktur.

Kata Kunci: Manajemen Stok, Laravel, Sistem Informasi, *Supply Chain*

ABSTRACT

This study aims to improve the operational efficiency of PT Karase through the development of a stock opname management application. The main issue is that stock monitoring is still performed using spreadsheet, making it prone to recording errors, delayed information, and slow operational responses. To address this, an application was developed to support real-time stock monitoring and calculation, integrated with the procurement process to establish a more structured and accurate inventory system. The methodology includes problem formulation, data collection through observation and interviews, and system development through the analysis of functional and non-functional requirements, system design using Unified Modeling Language (UML), and the creation of an intuitive user interface. Key features include stock recording, periodic stock opname, minimum stock notifications, purchase request submissions, and transaction history tracking. The system was developed using Laravel, Supabase, and Bootstrap. The result is a prototype of an information system that provides accurate and up-to-date stock data, supports data-driven decision-making, and reduces reliance on manual processes. Initial implementation shows the potential to improve operational efficiency through workflow automation and faster, more reliable stock monitoring. This study contributes to the application of information technology in inventory management within manufacturing companies.

Keywords: Stock Management, Laravel, Information System, Supply Chain

