



ABSTRAK

Penelitian ini dilatarbelakangi oleh pengelolaan persediaan Alat Tulis Kantor (ATK) pada PT Prime Agri Resources yang masih memerlukan pencatatan lebih terstruktur, khususnya dalam pemantauan stok masuk, stok keluar, permintaan ATK, serta penentuan jumlah pemesanan barang. Penelitian ini bertujuan merancang dan membangun Sistem Informasi Persediaan ATK berbasis website dengan menerapkan metode Economic Order Quantity (EOQ). Sistem dikembangkan menggunakan Laravel sebagai backend, React sebagai frontend, Inertia.js sebagai penghubung, dan MySQL sebagai basis data. Metode EOQ digunakan untuk menentukan jumlah pemesanan ekonomis berdasarkan kebutuhan tahunan, biaya pemesanan, dan biaya penyimpanan. Sistem juga dilengkapi dengan perhitungan Safety Stock dan Reorder Point, pengelolaan data ATK, pencatatan stok masuk dan stok keluar, permintaan ATK, laporan, serta ekspor Excel. Hasil penelitian menunjukkan bahwa sistem mampu mencatat transaksi persediaan, memperbarui stok secara otomatis, mengelola permintaan ATK, serta menghasilkan rekomendasi jumlah pemesanan optimal, stok pengaman, dan titik pemesanan ulang. Berdasarkan pengujian black box, seluruh fungsi utama berjalan sesuai hasil yang diharapkan. Dengan demikian, sistem dapat membantu perusahaan memantau ketersediaan ATK, mengurangi risiko kekurangan stok, dan mendukung pengambilan keputusan pemesanan secara lebih terstruktur dan terkontrol.

Kata Kunci: Economic Order Quantity, Persediaan ATK, Reorder Point, Sistem Informasi



ABSTRACT

This research was motivated by the need for a more structured management of office stationery inventory at PT Prime Agri Resources, particularly in monitoring incoming stock, outgoing stock, stationery requests, and determining appropriate order quantities. This research aims to design and develop a web-based Office Stationery Inventory Information System by implementing the Economic Order Quantity (EOQ) method. The system was developed using Laravel as the backend, React as the frontend, Inertia.js as the connector between the backend and frontend, and MySQL as the database. The EOQ method was applied to determine the most economical order quantity based on annual demand, ordering costs, and holding costs. The system is also equipped with Safety Stock and Reorder Point calculations, stationery data management, incoming and outgoing stock recording, stationery requests, reporting, and Excel export features. The results show that the system is capable of recording inventory transactions, automatically updating stock quantities, managing stationery requests, and generating recommendations for optimal order quantities, safety stock levels, and reorder points. Based on black-box testing, all main system functions operated according to the expected results. Therefore, the system can assist the company in monitoring stationery availability, reducing the risk of stock shortages, and supporting more structured and controlled inventory-ordering decisions.

Keywords: Economic Order Quantity, Information System, Office Stationery Inventory, Reorder Point, Safety Stock