

ABSTRAK

Digitalisasi proses bisnis jadi kebutuhan penting bagi UMKM untuk tetap kompetitif, termasuk pada Moneylab Sneaker Store yang sebelumnya masih mengandalkan penjualan manual melalui media sosial dan pencatatan stok menggunakan Excel. Kondisi ini menyebabkan keterbatasan jangkauan pasar, proses operasional yang lambat, serta potensi kesalahan data. Penelitian ini bertujuan merancang dan membangun sistem informasi penjualan sepatu berbasis e-commerce menggunakan metode Rapid Application Development (RAD) agar proses penjualan dan manajemen stok dapat berjalan lebih efisien dan terintegrasi.

Pengembangan sistem dilakukan secara iteratif melalui tahapan requirement planning, user design, construction, dan cutover. Pengujian sistem menggunakan dua metode: Black Box Testing untuk menguji fungsionalitas dan Usability Testing dengan parameter Time-Based Efficiency (TBE) untuk mengukur peningkatan efisiensi waktu penggunaan pada admin dan pelanggan. Hasil Black Box Testing menunjukkan tingkat feature completeness mencapai 1, yang berarti seluruh fitur berjalan sesuai kebutuhan. Pengujian TBE menunjukkan peningkatan signifikan, di mana nilai TBE admin meningkat dari 0.0064 menjadi 0.0291, sedangkan pada pelanggan meningkat dari 0.0059 menjadi 0.0205.

Hasil penelitian membuktikan bahwa sistem e-commerce yang dikembangkan mampu mempercepat proses transaksi, meningkatkan efisiensi pengelolaan data, serta memberikan pengalaman penggunaan yang lebih baik bagi pelanggan maupun admin. Sistem ini tidak hanya meningkatkan operasional toko, tetapi juga memperluas jangkauan pemasaran Moneylab Sneaker Store secara digital.

Kata Kunci: E-commerce, Sistem Informasi Penjualan, RAD, Black Box Testing, Time-Based Efficiency.

ABSTRACT

Business digitalization has become an essential requirement for micro, small, and medium enterprises (MSMEs) to remain competitive, including Moneylab Sneaker Store, which previously relied on manual sales through social media and stock recording using Excel. These conventional processes resulted in limited market reach, slow operational workflows, and frequent data inaccuracies. This research aims to design and develop an e-commerce-based sales information system for footwear products using the Rapid Application Development (RAD) method to improve efficiency and integrate sales and inventory processes.

The system was developed iteratively through the stages of requirement planning, user design, construction, and cutover. System evaluation employed two methods: Black Box Testing to validate functional performance and Usability Testing with the Time-Based Efficiency (TBE) metric to measure improvements in task completion speed for both admin and customer roles. The Black Box Testing results show a feature completeness value of 1, indicating that all features operate according to the defined requirements. The TBE results demonstrate significant improvements, with admin TBE increasing from 0.0064 to 0.0291, and customer TBE increasing from 0.0059 to 0.0205 in the new system.

The findings confirm that the developed e-commerce system successfully accelerates transaction processes, enhances data management efficiency, and provides a better user experience for both customers and administrators. Furthermore, the system effectively supports operational activities and expands the digital market reach of Moneylab Sneaker Store.

Keywords: *E-commerce, Sales Information System, Rapid Application Development, Black Box Testing, Time-Based Efficiency.*