ABSTRACT

This study evaluates a web-based inventory management system prototype for PT Kereta Cepat Indonesia China (KCIC) from the perspectives of user acceptance and security. The design process employed a User-Centered Design (UCD) approach to create a responsive user interface, which was validated through User Acceptance Testing (UAT). The results indicate a high level of user acceptance while also identifying specific areas for workflow improvement. From a security standpoint, the implemented Web Application Firewall (WAF) successfully blocked 100% of simulated attacks, and the reinforced HTTPS configuration ensured data-in-transit protection in accordance with modern security standards. The prototype demonstrates a user interface that is well-received and an effective foundational security layer, though further design iterations and optimizations are required before full-scale deployment.

Keywords: *Inventory management system, User-Centered Design, User Acceptance Testing, Web Application Firewall, HTTPS, web security.*