

ABSTRACT

Logistics efficiency remains a major challenge for Logistics Service Providers (LSPs) in Indonesia. Common issues include route optimization, load capacity management, and the often-ineffective control of operational costs. To address these challenges, this study proposes the development of a web-based application capable of integrating various logistics services into a unified system. The application is designed to assist LSPs in enhancing operational effectiveness through features such as optimized route planning, real-time capacity monitoring, and data presentation to support better decision-making. The system will be developed using the Laravel framework and built iteratively using the prototyping method, allowing for continuous user feedback at each development stage.

To ensure the application meets user needs, several testing methods were conducted. Usability testing indicated that the system met user expectations in terms of comfort and ease of use. The System Usability Scale (SUS) evaluation resulted in a score of 78.3, indicating that the system is well-accepted by users. Additionally, blackbox testing confirmed that all system functions operated as intended. It is expected that this application will contribute to improving distribution efficiency, service transparency, and the overall quality of logistics operations in Indonesia.

Keywords: *Logistics, LSP, Web Application, Prototyping, Laravel.*