

ABSTRAK

Permasalahan keterlambatan pengiriman kendaraan di Auto2000 Cabang Plaju menjadi hambatan signifikan dalam operasional perusahaan, yang berdampak pada penurunan kepuasan pelanggan dan inefisiensi proses distribusi. Sistem pencatatan dan koordinasi yang masih bersifat manual, seperti penggunaan papan tulis dan komunikasi lisan antar bagian, sering kali menimbulkan miskomunikasi dan keterlambatan. Penelitian ini bertujuan untuk merancang dan membangun aplikasi pengiriman kendaraan berbasis *website* dengan pendekatan *Root Cause Analysis* (RCA). Metode *Root Cause Analysis* (RCA) digunakan untuk mengidentifikasi akar permasalahan keterlambatan melalui pendekatan *Fishbone Diagram* (6M) yang meliputi faktor *Man*, *Machine*, *Method*, *Material*, *Measurement*, dan *Environment*. Pengembangan sistem dilakukan menggunakan model *Waterfall* yang mencakup tahapan analisis, desain, implementasi, pengujian, dan pemeliharaan. Aplikasi yang dibangun dilengkapi fitur *Delivery Request* (DR), notifikasi otomatis, *monitoring* status kendaraan, formulir (RCA) otomatis, serta *dashboard* visualisasi keterlambatan dengan diagram lingkaran *Root Cause Analysis* (RCA) dan grafik Pareto. Hasil implementasi menunjukkan bahwa aplikasi ini mampu meningkatkan efektivitas koordinasi antar bagian dan mempercepat proses pengambilan keputusan berbasis data. Kesimpulannya, sistem ini memberikan solusi terintegrasi yang mendukung optimalisasi serah terima kendaraan secara *real-time* dan meningkatkan performa logistik perusahaan.

Kata kunci: Pengiriman, Kendaraan, Aplikasi, Website, *Root Cause Analysis* (RCA), Diagram Fishbone, Optimalisasi.

ABSTRACT

Vehicle delivery delays at Auto2000 Plaju Branch pose a significant obstacle to operational performance, leading to decreased customer satisfaction and distribution inefficiencies. The manual system for recording and coordination—such as using whiteboards and verbal communication between departments—often results in miscommunication and delivery delays. This study aims to design and develop a web-based vehicle delivery application using the Root Cause Analysis (RCA) approach. The RCA method is employed to identify the root causes of delivery delays through the Fishbone Diagram (6M), which includes the factors of Man, Machine, Method, Material, Measurement, and Environment. System development follows the Waterfall model, covering the stages of analysis, design, implementation, testing, and maintenance. The application includes features such as Delivery Request (DR), automated notifications, vehicle status monitoring, automatic RCA forms, and a dashboard that visualizes delay data using RCA pie charts and Pareto charts. The implementation results show that the application improves interdepartmental coordination and accelerates data-driven decision-making processes. In conclusion, this system provides an integrated solution that supports real-time optimization of vehicle handover processes and enhances the company's logistics performance.

Keywords: Delivery, Vehicle, Application, Website, Root Cause Analysis (RCA), Fishbone Diagram, Optimization.