

ABSTRAK

Kecelakaan lalu lintas merupakan permasalahan serius di Kabupaten Semarang, dengan total 2.817 kejadian yang tercatat selama periode 2021–2025. Proses pencatatan data yang masih dilakukan secara manual di Unit Gakkum Satlantas Polres Semarang membutuhkan waktu yang panjang, sementara penyusunan bahan Analisis dan Evaluasi (ANEV) belum didukung sistem analitik yang memadai. Penelitian ini bertujuan mengembangkan *dashboard* kecelakaan lalu lintas berbasis Power Apps dan Power BI menggunakan metode *Rapid Application Development* (RAD). Perancangan dilaksanakan dalam dua iterasi dengan melibatkan pengguna secara langsung. *Dashboard* yang dihasilkan terdiri dari tiga komponen utama, yaitu *form input* data berbasis Power Apps dengan lima *section* pencatatan, basis data terpusat menggunakan Excel Online, serta *Dashboard* analisis berbasis Power BI yang mencakup halaman *Dashboard* Utama, Analisis dan Evaluasi, serta *Input Data*. Pengujian fungsionalitas menggunakan *black box testing terhadap* 48 skenario menunjukkan seluruh fungsi berjalan dengan valid. Evaluasi kebergunaan menggunakan *System Usability Scale* (SUS) menghasilkan skor rata-rata 72,5 yang termasuk kategori *Good* dan memenuhi target minimal yang ditetapkan. *Dashboard* yang dikembangkan terbukti mampu mendukung proses pencatatan data dan pengambilan keputusan berbasis data di lingkungan Satlantas Polres Semarang.

Kata Kunci: *Dashboard*, Power Apps, Power BI, *Rapid Application Development*, Sistem Informasi Kecelakaan Lalu Lintas

ABSTRACT

Traffic accidents represent a serious problem in Semarang Regency, with a total of 2,817 incidents recorded from 2021 to 2025. The data recording process at the Traffic Unit of Polres Semarang was still conducted manually and required a considerable amount of time, while the preparation of analytical evaluation (ANEV) materials lacked adequate digital support. This study aims to develop a traffic accident dashboard using Power Apps and Power BI through the Rapid Application Development (RAD) method. The system was developed in two iterations with direct user involvement. The resulting dashboard consists of three main components: a Power Apps-based data entry form with five recording sections, a centralized database using Excel Online, and a Power BI analytical Dashboard comprising the Main Dashboard, Analysis and Evaluation, and Data Input pages. Black box testing across 48 scenarios confirmed that all system functions performed correctly. Usability evaluation using the System Usability Scale (SUS) yielded an average score of 72.5, classified as Good and satisfying the predefined minimum threshold. The developed dashboard demonstrates its capability to support digital data recording and data-driven decision-making within the Polres Semarang Traffic Unit.

Keywords: *Dashboard*, Power Apps, Power BI, *Rapid Application Development*, *Traffic Accident Information System*