APLIKASI ADMINISTRASI PAMSIMAS DESA BAGAN MELIBUR MENGGUNAKAN METODE *DESIGN THINKING*

Nama Mahasiswa : Fitri Destika

Nim : 6304221485

Dosen Pembimbing : Ryci Rahmatil Fiska, M.Kom.

ABSTRAK

Pengelolaan administrasi Program Penyediaan Air Minum dan Sanitasi Berbasis Masyarakat (PAMSIMAS) di Desa Bagan Melibur masih dilakukan secara manual melalui pencatatan berbasis kertas untuk data pelanggan, pembayaran, dan laporan keuangan, sehingga rentan terhadap kesalahan, sulit dipantau, dan memperlambat proses penyusunan laporan. Melalui pendekatan *Design Thinking*, dikembangkan aplikasi E-PAMSIMAS dengan fitur pengelolaan data pelanggan dan RT, pencatatan pembayaran digital, rekapitulasi laporan, pengajuan pemasangan baru, pengaduan, serta pengelolaan surat peringatan dan pemberitahuan informasi layanan maupun jatuh tempo. Admin mengakses aplikasi melalui web, sedangkan ketua RT dan warga melalui aplikasi mobile. Mekanisme pembayaran tetap dilakukan secara tunai dengan ketua RT sebagai petugas penagihan berdasarkan kesepakatan pengelola dan warga, sementara seluruh proses pencatatan dan pemantauan administrasi telah terdigitalisasi melalui aplikasi. Hasil pengujian *prototype* melalui kuesioner menunjukkan bahwa tampilan aplikasi mudah digunakan, alur pengaduan jelas, serta informasi yang disajikan dapat dipahami dengan baik oleh pengguna. Pengujian *blackbox* menunjukkan bahwa seluruh fitur utama aplikasi berjalan sesuai dengan yang diharapkan. Secara keseluruhan, E-PAMSIMAS mampu meningkatkan keteraturan administrasi, keakuratan data, dan transparansi layanan air di tingkat desa.

Kata kunci: PAMSIMAS, *Design Thinking*, Aplikasi Multiplatform, *BlackBox Testing*, Administrasi Digital.

ADMINISTRATIVE APPLICATION FOR PAMSIMAS IN BAGAN MELIBUR VILLAGE USING THE DESIGN THINKING METHOD

Student Name	: Fitri Destika
Student ID	: 6304221485
Supervisor	: Ryci Rahmatil Fiska, M.Kom.

ABSTRACT

The administrative management of the Community-Based Drinking Water and Sanitation Program (PAMSIMAS) in Bagan Melibur Village is still carried out manually through paper-based recording for customer data, payments, and financial reports, making it prone to errors, difficult to monitor, and slowing down the reporting process. Using a Design Thinking approach, the E-PAMSIMAS application was developed with features including customer and RT data management, digital payment recording, report recapitulation, new installation requests, complaints, as well as warning letter management and service information notifications. The admin accesses the application via web, while RT heads and residents access it through a mobile application. Payment mechanisms remain cash-based with the RT head serving as the billing officer based on mutual agreement between managers and residents, while all administrative recording and monitoring processes have been digitalized through the application. Prototype testing through questionnaires indicated that the application interface is easy to use, the complaint flow is clear, and the information presented is well understood by users. Blackbox testing confirmed that all main features of the application function as expected. Overall, E-PAMSIMAS is capable of improving administrative order, data accuracy, and transparency of water services at the village level.

Keywords: PAMSIMAS*, Design Thinking, multiplatform application, BlackBox Testing, Digital Administration*.