ABSTRACT

Telkom Witel Sulawesi Bagian Tengah (Sulbagteng) continues to encounter difficulties in managing operational performance data, which is still processed manually using spreadsheets. This practice often results in delays in accessing key information and inefficiencies in performance monitoring. In response to these issues, this Final Project focuses on developing a web-based application that automatically integrates operational data and displays it through interactive, real-time visualizations. The system offers several core features, such as user authentication, the ability to upload CSV files or input Google Spreadsheet links, automatic data parsing, and a dynamic dashboard that visualizes performance metrics by segment. The development was carried out incrementally using the Agile methodology, allowing each feature to be built, tested, and refined through multiple iterations. The project utilized tools such as Next.js as the main development framework, Supabase for handling authentication and metadata, and the Google Spreadsheet API as a data source. Testing showed that the application significantly improves staff efficiency, speeds up data access, and reduces reliance on manual reporting processes. Overall, the system has met its intended purpose within the BGES unit and shows potential for further expansion across other operational units within the organization.

Keywords: Web application, data visualization, Supabase, Google Spreadsheet, BGES unit