

ABSTRACT

The advancement of digital technology has brought significant changes to MSMEs, including UD Jaya, a building materials store in Malang Regency. One of the main issues faced is the manual financial recording system, which is prone to errors, data loss, and slows down the reporting process. To address this, the study aims to design and develop a mobile-based cashier finance application using the prototype method with an iterative approach that involves users actively throughout the development process. The application is built using React Native for the Android platform, with Firebase Realtime Database for data storage and Cloudinary for handling image files. Key features include recording sales and purchase transactions, inventory management, operational cost tracking, exporting reports to Excel, and printing receipts via Bluetooth printer. Evaluation was conducted using User Acceptance Testing (UAT) on three user roles: Admin, Cashier, and Owner. The UAT results showed scores of 87.5% for Admin, 87.5% for Cashier, and 80.5% for Owner, with an overall average of 85.2%. Users found the application easy to use, consistent in appearance, and functional as expected. The receipt printing feature received positive feedback, although minor suggestions were given regarding display comfort. Black Box Testing confirmed that all features functioned properly without issues, including input, edit, delete, filter, export, and data validation such as email format, numeric input, and error notifications. Bluetooth printer connection and disconnection also worked smoothly. The evaluation results indicate that the application is feasible to implement, effectively addressing the limitations of manual record-keeping, enhancing efficiency and transaction accuracy, and supporting data-driven decision-making. This application is expected to be a relevant digital solution for MSMEs in facing the challenges of the Industry 4.0 era and a practical step toward small business digitalization.

Keywords: MSMEs, cashier application, mobile, React Native, finance, prototype, UAT, Firebase.