

ABSTRACT

Toko Bangunan Pratama in Sijunjung Regency, West Sumatra experiences understock problems due to manual recording systems that cause stock data inaccuracy and delayed detection of stock shortages.. Manual inventory management results in the absence of early warning systems and difficulties in making timely decisions.

The research was conducted at Toko Bangunan Pratama for 2 weeks (April 1-15, 2025) involving the store owner (Mr. Herdiman) and two employees (Mr. Iwan and Mr. Tu'ek). Data were collected through direct observation, in-depth interviews, and internal document analysis. A website-based inventory information system was developed using the Rapid Application Development (RAD) method through four stages: requirements planning, user design, construction, and implementation. The website system was chosen because it can provide automatic minimum stock alerts, real-time monitoring, and accurate data for timely decision-making to prevent understock.

The research results successfully developed a system with real-time stock recording features, automatic minimum stock alerts, and monitoring dashboard. Black Box Testing verified 18 test scenarios functioning perfectly, while User Acceptance Testing with ISO 25010 standards achieved an "Excellent" acceptance level (93%). System implementation is projected to reduce understock incidents from 73 times in 15 months to a maximum of 10 times per year; decrease financial losses by up to 70%, and support data-driven decision making for sustainable business operations.

Keywords: *Management Information System, Inventory, Understock, SMEs, Rapid Application Development*