

ABSTRACT

Esgotado is a local fashion business that has been operating since 2012, focusing on the production of various types of bags. Esgotado faces problems in raw material stock management due to the lack of an information system capable of displaying information in real time, resulting in inaccurate raw material stock records, production planning errors, and the risk of being unable to meet fluctuating market demand. The design of the information management system was carried out using the Rapid Application Development (RAD) method, which includes the following stages: Requirements Planning, User Design, Construction, and Cutover. The RAD method involves users more actively throughout the design process to define requirements and test features on the system. The RAD method is more adaptable to changes during the design process. Iterations in the design using the RAD methodology produce prototypes that can be validated directly by users. Efforts to address these issues include the design of a Management Information System (MIS) using Radio Frequency Identifier (RFID) technology to store and process raw material inventory data in real-time. System validation is conducted through a User Acceptance Test (UAT) based on ISO 25010 standards. The UAT results indicate an “Excellent” rating with an average percentage of 91%, including functional suitability at 90%, performance efficiency at 96.67%, compatibility at 100%, usability at 73.34%, and reliability at 95%. The implementation of a management information system (MIS) with radio frequency identification (RFID) is expected to enable real-time storage and processing of raw material inventory data, minimize human error, improve the accuracy of raw material inventory data, and support decision-making in meeting production needs.

Keywords – MIS, RFID, Inventory Management, RAD