

Implementation of Mobile Application for Cloud-Based Rice Traceability System with Monitoring and Quality Classification Features

Dia Bitari Mei Yuana, S.ST., M.Tr.Kom. as chief counselor

Muhammad Farhan Ramdhanie

Informatics Engineering Study Program

Information Technology Department

ABSTRACT

The manual recording of rice cultivation operations at the upstream level (farmers) of UD Tani Rejo is vulnerable to data loss and a lack of transparency, thereby hindering the quality assurance process of export rice. This study aims to implement a Cloud Computing-based traceability system through the "Jejak Padi" mobile application to digitalize operational recording in real-time. The application was developed using the Flutter framework and MySQL database, with its data tracking adapted from the GSI Traceability Standard guidelines. Application functionality testing was conducted using the User Acceptance Test (UAT) method, involving direct participation from farmers and partner management. The UAT results showed that all application functionalities were well-received, user-friendly, and operated according to requirements. This digitalization is proven to optimize operational efficiency, enhance supply chain transparency, and strengthen the competitiveness of UD Tani Rejo's export rice quality assurance in the global market in accordance with the SNI 6128:2020 parameters.

Keywords: *Traceability, Export Rice, Mobile Application, Cloud Computing, User Acceptance Test (UAT), GSI Standard.*