

Pengembangan Sistem Informasi Rantai Pasok Beras Berbasis Cloud Computing Untuk Peningkatan Jaminan Mutu dan Keamanan Data

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ABSTRAK

Pengelolaan rantai pasok beras di UD Tani Rejo masih dilakukan secara manual sehingga berisiko menimbulkan kehilangan data, kesalahan pencatatan, serta rendahnya transparansi dan jaminan mutu produk. Kondisi ini menunjukkan perlunya sistem yang mampu mengelola data secara terintegrasi dan lebih aman. Penelitian ini bertujuan untuk mengidentifikasi kondisi pengelolaan data serta menerapkan sistem berbasis cloud computing (JejakPadi) dan mengevaluasi dampaknya terhadap efisiensi operasional, keamanan data, serta jaminan mutu produk. Metode yang digunakan adalah System Development Life Cycle (SDLC) dengan pendekatan Waterfall yang meliputi tahap analisis, perancangan, implementasi, dan evaluasi. Hasil penelitian menunjukkan bahwa sistem JejakPadi mampu meningkatkan efisiensi pencatatan, menyediakan penyimpanan data yang terpusat dan lebih aman, serta meningkatkan transparansi melalui fitur QR Code. Selain itu, pencatatan data yang terintegrasi pada setiap tahapan produksi turut mendukung peningkatan jaminan mutu produk.

Kata Kunci: Rantai Pasok Beras, Cloud Computing, Traceability, QR Code

Development of a Cloud-Based Rice Supply Chain Information System to Enhance Quality Assurance and Data Security

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ABSTRACT

Rice supply chain management at UD Tani Rejo is still conducted manually, posing risks of data loss, recording errors, and low transparency and product quality assurance. These conditions highlight the need for a system capable of managing data in an integrated and more secure manner. This study aims to identify the current state of data management, implement a cloud-based system (JejakPadi), and evaluate its impact on operational efficiency, data security, and product quality assurance. The method used is the System Development Life Cycle (SDLC) with a Waterfall approach, which includes the analysis, design, implementation, and evaluation phases. The results of the study show that the JejakPadi system is capable of improving recording efficiency, providing centralized and more secure data storage, and increasing transparency through the QR Code feature. In addition, integrated data recording at every stage of production also supports improved product quality assurance.

Keywords: *Rice Supply Chain, Cloud Computing, Traceability, QR Code*