

ABSTRACT

As a leading tea research center in Indonesia, PPTK Gambung addresses the challenge of increasing transparency in green tea supply chain records. This research aims to develop a blockchain-based system that can increase transparency and security in the green tea packing and shipping process. By utilizing blockchain technology and smart contracts, this system is designed to enable real-time tracking of tea origins through barcode scanning by consumers. The research methodology includes requirements analysis using BPMN, system design with UML, and implementation using Solidity for smart contracts and React for user interfaces. This research uses the SDLC method, which allows for gradual development and periodic evaluation. The results of this study increase consumer trust in PPTK Gambung products, provide solutions to transparency problems in the green tea industry in Indonesia, and set new standards in tea industry supply chain management.

Keywords: *Blockchain, Traceability, Green Tea Supply Chain*