SUMMARY

KARZANI ANDIKA IRSYAPUTRA. Design of Traceability System Base on Information Technology on Organic Rice, Tasikmalaya, West Java. Supervised by KUDANG BORO SEMINAR and LILIK NOOR YULIATI.

Organic Farming is one of the methods of agriculture in producing or engaging production process without using artificial chemicals. The development of organic agriculture in the world and Indonesia has increased. This can be seen from facts that the amount of agricultural land area used for organic cultivation have increased. Organic rice as the second largest organic product becomes the main concern because rice is the primary product consumed by the people of Indonesia and one of the imported commodities.

Organic producers have an obligation to ensure the authenticity of organic rice offered. On the other hand, consumers also have the right to receive products as promised by organic rice producers. Good traceability systems help to minimize the production and distribution of unsafe or poor quality of organic rice products, thereby minimizing the potential for bad publicity, liability, and recalls. One system that can guarantee quality and safety is by applying the traceability system on the organic rice supply chain. One of the development of traceability system that already exists in the world are IoT (Internet of Things) dan QR Code (Quick Response Code) to be able to store real-time data and read product data.

This study aims to design a traceability system prototype using System Development Life Cycle (SDLC) approach. Based on the SDLC approach, this research through the identification phase, system investigation, system analysis, system design, system architecture, prototyping, and also testing and evaluation. This study focused on analyzing the information system needs in the collecting, storing and digital data exchange. The results of this study indicates that the actors involved in organic rice supply chain are farmers, cooperatives, exporters, and certification institute. Development of prototype traceability system is done so that every actor can do product tracking and consumer can scan and see the complete data of the products they consumed.

Keywords: organic rice, qr code, traceability, information technology