ABSTRACT

The cocoa bean warehouse owned by the farmer group association (Gapoktan) plays an important role in the cocoa supply chain, particularly in maintaining the quality of the harvest and ensuring smooth distribution to buyers. However, the current business processes still rely on manual systems, from recording incoming and outgoing stock, shipping processes, to reporting. This reliance on manual recording creates various operational challenges, such as shipping delays due to inaccurate stock data, the risk of recording errors, and the loss of important data. This study aims to redesign warehouse business processes through a Business Process Reengineering (BPR) approach, integrating Radio Frequency Identification (RFID) technology to create an efficient, accurate, and adaptive Smart Logistics system tailored to operational needs. The methods used include direct field observations, interviews with warehouse managers, and mapping of actual and proposed processes based on BPR principles, such as eliminating non-value-added activities and simplifying workflows. The research results show that integrating RFID into cocoa bean receiving and dispensing activities can significantly improve efficiency. The average recording time, which previously reached 275 minutes per day, was reduced to 189 minutes, equivalent to a time reduction of 86 minutes (31.27%). Additionally, the new system provides real-time stock data visibility, strengthens internal controls, and supports quick, data-driven decision-making processes. Thus, the implementation of the BPR approach combined with RFID technology has proven to enhance overall warehouse logistics performance and provide Gapoktan with a strategic advantage in addressing the dynamics of the cocoa commodity supply chain.
Keywords: BPR, RFID, Warehouse, Cocoa Bean