ABSTRACT

The use of information technology in managing loan applications and returns of operational goods at PT. PLN (Persero) East Java Distribution Main Unit, Technology and Information Systems division is very important to increase speed and accuracy in business processes. Manual management of requests and returns of goods in the warehouse causes various problems such as processing delays, recording errors, and lack of transparency in inventory management. To overcome these problems, this study aims to design and develop a mobile-based information system to support the process of requesting and returning goods more accurately, in real-time and in a structured manner. The system was developed using React Native and the Firebase database, with an Extreme Programming methodology approach consisting of planning, design, coding, testing, and release stages. The results of this study are a mobile application that can be used by three types of users, namely admin, warehouse staff, and operational units (UP3), with features tailored to their respective roles. The application was tested using the black-box testing method and validation verification from partners, with the results showing that all functions run as expected and the system successfully improves the accuracy and transparency of goods management in the warehouse.

***Keywords**: Mobile App, Inventory Management, Extreme Programming, Black-box Testing*