

ABSTRACT

Library inventory management is an important aspect in supporting the efficiency and quality of library services, especially in the university environment. This research aims to implement Business Intelligence to optimize inventory management at the Telkom University Purwokerto Library. The method used in this research is a mix method with a case study approach, covering the stages of the Business Intelligence Roadmap from Justification to Deployment. The ETL process was carried out on three main datasets sourced from SLiMS and ITTP Digital Library systems using Python and Power BI. Furthermore, an interactive dashboard was developed as an information visualization tool that is more easily understood by users.

Evaluation was carried out using two methods, namely the System Usability Scale (SUS) and interviews with librarians. The results show that the Business Intelligence system built is able to increase the effectiveness of data analysis, accelerate decision making, and present inventory information more accurately and efficiently. This research shows that the implementation of Business Intelligence contributes significantly to improving the quality of inventory management in college libraries.

Keywords: *Business Intelligence, Library Inventory, Dashboard, Power BI, ETL, System Usability Scale.*