

***Designing the Jember Regency BPBD Warehouse Logistics Inventory
Management System Application using the Human
Centered Design (HCD) Method***

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ABSTRACT

The inventory management process at the BPBD Warehouse in Jember Regency is still carried out manually, posing risks of data loss, recording errors, and inefficiency in disaster logistics handling. This study aims to design the UI/UX of an inventory management system at the BPBD Warehouse in Jember Regency using the Human Centered Design (HCD) method. The HCD method is implemented through four stages: (1) identifying users and the context of use; (2) specifying user requirements; (3) producing design solutions; and (4) evaluating the design against user requirements. The main users in this study are the Admin and Officer of BPBD. The evaluation was conducted through Usability Testing using Maze tools with effectiveness and efficiency indicators, the System Usability Scale (SUS), and Blackbox Testing. The effectiveness test obtained a success rate of 91.25%, categorized as "Highly Effective". The efficiency test showed an average task completion time of 85.22 seconds, classified as "Very Fast". The SUS test obtained a score of 90.94, categorized as "Excellent", and the Blackbox Testing showed that all features operated according to their designed functions. These results indicate that the UI/UX design of the system is declared successful and feasible to be implemented.

Key words: *Inventory Management System, Human Centered Design, BPBD, Usability Testing, System Usability Scale.*