
ABSTRACT

The Kanban system is a methodology used to manage and track workflows to optimize production efficiency. This study investigates issues identified through observational analysis and retrospective reviews only to reveals many data abnormalities such as redundancy and loss of Kanban cards. These issues stem from non-real-time data consumption and prolonged Stock Transfer Order (STO) processes, which impede the achievement of production targets. The research aims to develop a software interface solution utilizing a User-Centered Design (UCD) approach, assessed through Usability Testing (UT) and the System Usability Scale (SUS). Evaluating usability to encompasses the aspects of Effectiveness, Efficiency, Memorability, Error, and Satisfaction. The results showed an Effectiveness of 93.3% with an increase of 3.03% on the second test, while Efficiency was recorded at 151.83 seconds to complete all the task and 70.23 seconds on the second test, a decrease in time across all the task resulting in a great Memorability while having the Error rate low at 17.8% and 3.9% on the second test. Therefore, having the SUS to yield a score of 8.41, with a grade of A, indicating that it is acceptable and categorized as excellent.

Keywords: Kanban System, User Centered Design, Usability Testing, System Usability Scale