

ABSTRACT

Based on data from the Asian Development Bank (2016), every year more than 32 billion m³ of managed water is lost due to leaks in the distribution network. Another sixteen billion m³ goes to customers without being billed for theft, poor meter reading or corruption. From this background, a platform is needed that can minimize the failure of the water reading system from several non-physical factors, so that it becomes the basis for research in creating a website-based automatic water reading system, namely a smart dashboard application that is able to retrieve historical and relative customer water usage data. real-time. To ensure the reliability of the process of recording customer water usage, issuing usage bills and paying bills directly through the application, the smart dashboard is supported by Automated Meter Reading (AMR) technology which is integrated with conventional water meters in reading values from water meters and sent directly to the server. The development of smart dashboards uses the javascript programming language, react js library, as a tool for implementing smart dashboards and iterative incremental methods for clear division of features. Applying the iterative incremental method, each phase is implemented in two iterations using usability testing to test the functionality of the smart dashboard. The results of usability testing on smart dashboards get a SEQ score of 6.68 supported by a SUS score of 89.5 with a grade "B" representative. This score indicates that the smart dashboard has been successful in providing a good user interface and user experience such as a more aesthetic appearance, the information displayed is easier to understand and the design is designed, and easy for users to use.

Keywords— air, automated meter reading, usability testing, iterative incremental, Internet of things, javascript, react js, smart dashboard, SUS, SEQ.