

ABSTRACT

Baitul Maal Wa At Tamwil (BMT) is a sharia financial institution that provides savings and loan services accordance to social, cultural, and economic needs of rural communities, especially in agricultural and plantation communities. The manual data recording and centralized server can causes fraud financial reports and creates a lack of credibility between BMT and its customers, one way to overcome this problem requires the application of blockchain technology. The distributed blockchain system provides an easy access for both customers and BMT parties who are connected to the network, so that the recorded data can be accessed by anyone, the application of blockchain technology to BMT is built on a website platform.

Based on the tests, the implementation of blockchain on e-BMT application has ran according to expectations with a 100% success rate with the average transfer time on two devices 9.47 seconds and 12.13 seconds. While the results of data entry time on two devices obtained an average of 9.96 seconds and 37.09 seconds. It is proven that blockchain technology are able to provide access to every user so that each entity can confirm the validity of the transactions that occur, the size of the transactions, the transfer of funds, and other data recorded on the blockchain without having to develop an integrated database system.

Keywords: *blockchain, BMT, cooperative, ethereum.*