Blockchain based E - Cheque Clearing and Verification

Tejas Mahesh Naik

Student, Department of MCA

Late Bhausaheb Hiray S. S. Trust's Institute of Master of Computer Application, Mumbai, India

naiktejas243@gmail.com

Abstract: *This study work suggests a cutting-edge electronic check clearance system that is scalable. It is built on the blockchain, and all banks interested in using it must sign up for the proposed blockchain-based framework in order to provide their clients the speedier cheque clearance service. The suggested e-cheque solution is free from numerous security threats like e-cheque manipulation, double spending, and forged e-cheques. The suggested solution allows for the electronic or physical deposit of the e-cheque through teller machines. Because only 32.2% of nodes, on average, engage in the proposed trust-based consensus mechanism and because the number of messages exchanged during each consensus process is significantly lower than with the PoW strategy, the proposed system is highly scalable.*

Keywords: e-cheque

REFERENCES

[1]. M. Anderson, The electronic check architecture, Financial Services Technology Consortium, 123 (1998).

[2]. Anonymous, Introduction of indian banking system: Past and present senario, http://shodhganga.inflibnet.ac.in/bitstream/ 10603/92717/9/, accessed on 2019-01-10.

[3]. S. Bano, A. Sonnino, M. Al-Bassam, S. Azouvi, P. McCorry, S. Meiklejohn, and G. Danezis, Consensus in the age of blockchains, arXiv preprint arXiv:1711.03936, (2017).

[4]. Barclays, Barclays says conducts first blockchain-based trade-finance deal, https://reut.rs/2AQEG9w

[5]. C.-C. Chang, S.-C. Chang, and J.-S. Lee, An on-line electronic check system with mutual authentication, Computers & Electrical Engineering, 35 (2009), pp. 757–763.

[6]. L. Cocco, A. Pinna, and M. Marchesi, Banking on blockchain: Costs savings thanks to the blockchain technology, Future Internet, 9 (2017), p. 25.

[7]. Eyal, Blockchain technology: Transforming libertarian cryptocurrency dreams to finance and banking realities, Computer, 50 (2017), pp. 38–49

[8]. "Cheque: What is Cheque, Know All about Cheque | Steps for filling Cheque | Paisabazaar.com." [Online]. Available:

[9]. https://www.paisabazaar.com/banking/what-is-cheque/. [Accessed: 01-Nov-2020].

[10]. "Lanka Clear." [Online]. Available: https://www.lankaclear.com/knowledge-center/cits/. [Accessed: 31-Dec-2020].

[11]. N. Kabra, P. Bhattacharya, S. Tanwar, and S. Tyagi, "MudraChain: Blockchain-based framework for automated cheque clearance in financial institutions," Futur. Gener. Comput. Syst., vol. 102, pp. 574– 587, 2020..