Supply Chain Management in Agricultureusing Blockchain

Godse Shubham, Gite Rahul, Ekhande Nilesh, Akolkar Aditya, Prof. Mundhe Bhalchandra

Department of Computer Engineering

Sahyadri Valley College of Engineering, Rajuri, Maharashtra, India

Abstract*: Block chains are now firmly established as a digital technology that combines cryptographic, data management, networking, and incentive mechanisms to support the verification, execution, and recording of transactions between parties. While block chain technologies were originally intended to support new forms of digital currency for easier and secure payments, they now hold promise as a new foundation for all forms of transactions. Agribusiness stands to become a key beneficiary of this technology as a platform to execute 'smart contracts' for transactions, particularly for high-value produce. First it is important to distinguish between private digital currencies and the distributed ledger and block chain technologies that underlie them. The distributed and cross- border nature of digital currencies like Bit coin means that regulation of the core protocols of these systems by central banks is unlikely to be effective. Monetary authorities are focused more on understanding 'on-ramps' and 'off-ramps' that constitute the links to the traditional payments system rather than being able to monitor and regulate the currency itself. In contrast to the digital currency feature of block chain, the distributed ledger feature has the potential for widespread use in agribusiness and trade financing, especially where workflows involve many different parties with no trusted central entity*

Keywords: Block chains

REFERENCES

[1]. L. Guo, C. Zhang, J. Sun, Y. Fang. "A privacy-preserving attribute based authentication System for Mobile Health Networks", IEEE Transactions on Mobile Computing, 2014.

[2]. A. Abbas, S. Khan, " A review on the state-of-the-art privacy preserving approaches in e-health clouds", IEEE Journal of Biomedical Health Informatics, 2014.

[3]. J. Yang, J. Li, Y. Niu, " A hybrid solution for privacy preserving medi-cal data sharing in the cloud environment ", Future Generation Computer Systems, 2015.

[4]. V. Goyal, O. Pandey, A. Sahai, B. Waters, " Attribute-based encryption for fine-grained access control of encrypted data ", Proc. 13thm ACM Conf. Computer and Comm. Security (CCS06), 2006.

[5]. R. Ostrovsky, A. Sahai, B.Waters, " Attribute-based encryption with nonmonotonic access structures ", in: Proceedings of the 14th ACM Confer-ence on Computer and Communications Security, ACM, 2007.

[6]. J. Han, W. Susilo, Y. Mu. " Improving privacy and security in decentralized cipher text-policy attribute-based encryption ", IEEE Transactions on on Information Forensics and Security, 2015.

[7]. M. Li, S. Yu, Y. Zheng, K. Ren, W. Lou, " Scalable and secure sharing of personal health records in cloud computing using attribute based encryp- tio