Blockchain Account Technology: A Systematic Literature Review of Security, Privacy and Mass Adoption in Human Digital Future

Huifeng Jiao

International College of Digital Innovation, Chiang Mai University, Chiang Mai, 50200, Thailand[1]
E-mail: huifeng_jiao@cmu.ac.th

ABSTRACT

Blockchain market value peaked at $3 trillion, fell to $1 trillion, then recovered to $1.5 trillion and is rising again. Blockchain accounts secure most on-chain assets in this huge market. This paper presents a comprehensive review of blockchain account development, encompassing both academic and industry perspectives. Searching with key words: blockchain, account, private key and security in WOS,Scopus and Bitcoin and Ethereum community history, this research provides in-depth insights into the design and evaluation of account models, from traditional bank accounts to Bitcoin, EVM-adaptable, and abstraction accounts. Through data-driven comparisons of account models (security, cost, adoption), this study explores future directions and provides an overview of cross-model account theory, guiding further blockchain research. While it use systematic literature review method to search, filter, analysis and evaluate the pappers about account models and analyzes related technology trade-offs, it leaves deeper dives into model change drivers, application technology advancements.

KEYWORDS: Blockchain, Account, Private key, Security, Privacy, Mass Adoption