Incentive Mechanism of Blockchain Technology in Sharing Economy

Souradeep Koley, Mukesh Barua
Research Scholar, Indian Institute of Technology Roorkee
Professor in Department of Management Studies
Indian Institute of Technology Roorkee
Uttarakhand, India
S_koley@ms.iitr.ac.in, Mukesh.barua@ms.iitr.ac.in

Abstract

Due to the innovative business model and the digital platform's crucial role, the sharing economy appears to be a new entity in the business world. However, companies rake in by providing both parties with a common platform. This paper focuses on utilizing Blockchain technology (BCT) in the sharing economy. A theoretical model has been suggested that does away with the existing incentives system and permits transparency end to end. By fostering flexible networking architecture with openness and equality at its core, the sharing economy departs from the pre-existing economic system and focuses on ownership. While sharing has evolved from a collaborative practice to a viable business model, it goes far beyond blurring the line between paid employment and uncompensated volunteering. Literature suggests that transportation and accommodation are the most promising domains of sharing economy. However, to ensure trust and transparency across the platform, BCT can be used. The proposed model uses tokenization and gamification over the underlying Proof-of-Stake (PoS) consensus mechanism to provide a real peer-to-peer network that challenges the current model. The nodes and validators earn tokens as a reward, while the gamification process allows the service to scale and get better incentives.

Keywords
Blockchain Technology, Sharing Economy, Gamification, Tokenization, Consensus mechanism

Biographies
Souradeep Koley is a Ph.D. student at the Department of Management Studies, Indian Institute of Technology Roorkee, India. His current research interest is in the study of disruptive technology, especially blockchain in sharing economy, game theory and optimization. He has previously presented at conferences like POMS India. He is an active member of INFORMS, POMS, The OR Society.

Mukesh Kumar Barua is a professor at the Indian Institute of Technology Roorkee's Department of Management Studies. He earned his master's and doctorate degrees from IIT Madras. His research interests include supply chain management, project management, and operations management. He has published several research papers in prestigious publications and conferences, including articles in the International Journal of Production Economics, Journal of Cleaner Production, Technological Forecasting and Social Change.