

Prospect of Blockchain Technology for Construction Project Management in Malaysia

ABSTRACT

Year 2017 is hailed as the year of the blockchain, a technology which has disrupted a wide array of sectors, particularly the financial and legal sectors. Blockchain is a technology derived from Bitcoin, the first cryptocurrency created by Satoshi Nakamoto in 2008. Since then, the Bitcoin concept has been innovated to create blockchain technology. Blockchain consists of de-centralized, tamper-proof digital ledgers of transactions, which are chronologically and securely recorded over complex networks. Proponents of this technology are looking into the adoption of blockchain in their operations, since it is safer and reduces operating costs. This paper provides an overview of the prospects of utilizing blockchain technology to solve issues existing in the construction industry, specifically in Malaysia. The scope of this study is confined to several aspects, which includes the fundamentals of blockchain technology, and the use of Building Information Modeling (BIM) for pre-construction and construction phases, within the purview of the project management field. Among the applications of this technology includes identity validation and notarization for construction personnel/industry players, project governance and smart contracts (BIM and Blockchain integration). As a result of this study, it was found that the application of blockchain technology in project management is still in its early adoption phase, with exciting developments in the near future. Despite being in its early stages of adoption, it can be seen that the blockchain technology adoption across the globe, particularly in the area of project management has a promising outlook. However, further research needs to be carried out to ascertain the feasibility of blockchain technology implementation in the local construction industry.