

Adaptation of Blockchain Technology in the Banking Sector in Sri Lanka: Opportunities and Challenges

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Abstract

Blockchain Technology is one of the main components in Industry 4.0 implications which enables organizations to trace transactions, create new business models to solve customer problems, increase the quality and productivity etc. Blockchain technology is used in various industries such as supply chain industry, banking industry, healthcare industry, construction industry and many more. However, in Sri Lanka, there is a gap in the implementation of blockchain technology in the banking sector despite the number of on-going and completed projects. The primary goal of this study is to identify the challenges and opportunities in blockchain adaptation and identify how the banking sector should be facilitated in the future to implement blockchain-based banking systems. Cluster sampling and intensity sampling techniques were used to identify the sample. In-depth interviews were used for data collection, and the data were analysed using the thematic analysis. Technological, Organizational and Environmental framework was used for developing the questionnaire and to support the data analysis. The study shows that implementing blockchain-based banking systems would improve the transactions' transparency, give managers access to real-time data, improve the transactions' auditability, and save consumers time and effort. Additionally, the key reasons that challenge the implementation of blockchain technology are lack of technological understanding and accessibility, organizational hurdles, and environmental barriers.

Keywords: *Blockchain technology, Banking, Thematic analysis*