


Chapter 11

Applications of Blockchain Technology in the Finance and Banking Industry Beyond Digital Currencies

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ABSTRACT

Blockchain and cryptocurrency have almost become synonymous. Cryptocurrency is arguably one of the most sensational financial innovations of the 21st century. The current study claims that blockchain technology is not limited to the application of digital currencies in finance and banking; there are wide applications of blockchain technology in the given field. Blockchain uses the unique properties enabling decentralized, secured, transparent, and temper-proof financial transactions that have the potential to revolutionize the financial services industry. Given such a stance, the chapter outlines the application of blockchain technology in the finance arena beyond the digital currency. In this chapter, the authors provide the 10 applications of blockchain technology in the financial services industry implementing the blockchain technology and revolutionizing the finance and banking industry. The chapter also highlights the hurdles to application of blockchain technology in the finance and banking industry.

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INTRODUCTION

Information technology, with all its miracles around the globe and its applications in several business areas, has astonishingly provided solutions to industry and other business sectors. On the other hand, the internet and other web sources have made the businesses quite easy. As a result of this ease, new businesses have emerged that were never existed before. The real application of information technology has made life of people comfortable where access to different resources have been at a tip of a finger of an individual by a single tap of a mobile screen or hand-held devices. Currently, the most important technology that has been deeply addressed and focused is the blockchain technology. This technology, beating the previous technologies, has enabled business to be conducted in most efficient ways where the payments of users have been shifted from unsecured mode to secured mode. In fact, blockchain is a safe, secured, and open ledger that relies on peer-to-peer (P2P) network systems that does not have a centralized system of controlling the transactions rather this system is maintained by several participants providing a decentralized approach (Vives, 2017). Due to its availability to all the participants involved in a transaction, the information recorded in the blockchain can never be tempered, retrieved, or misused by the irrelevant parties. For this reason, blockchain technology is considered as a trusted ledger which cannot be hacked by the hackers and other information systems (Rabbani et al., 2021a).

Although several studies addressed the blockchain technology in a different way, the consensus on the findings of the studies is still vague and unequivocal that opens door for further investigation and exploration. Similarly, the application of blockchain technology has been widely researched and scholars are still finding answers to their empirical investigations. In this stream, the study of (Geranio, 2017) investigated that how to reshape and redesign the patterns of securities trade and market exchange through blockchain technology. Moreover, by applying the blockchain technology, frauds and corruption in land registries and real estate matters can be completely avoided as this technology saves the transactions and leaves no chance of tempering.

Another study of (Cousins et al., 2019; Fosso Wamba et al., 2020) revealed that one of the significant applications of blockchain technology through smart contracts is able to replace several functions usually maintained by the post-trade organizations and firms. This fact must be accepted that technology will be reshaping the lives of every individual, every single business entity, and probably all the organizations around the globe not rapidly but gradually as the adoption of technological advancements in certain business aspects are quite slow and not yet emerged. However, (Ben & Xiaoqiong, 2019) is of the view that technology, just like internet two decades ago, will be eventually evolved and surrounded all the businesses with full boom in the near future. This revolution of technology will be so abrupt, rapid, and at quicker

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