

Chapter 3

Exploring the Potential Influences of Blockchain Technology in Financial Reporting

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ABSTRACT

This study aims to assess the influences that blockchain technology may have on financial reporting as the first presents unique characteristics that may contribute to transparency, immutability, security, and real-time availability of the latter. Hence, 11 interviews were conducted with professionals related to professors' professionals of accounting, and specialists in blockchain technology, to collect their perceptions on the subject. It was possible to conclude that blockchain technology may influence financial reporting mainly by enhancing its reliability, a qualitative characteristic referred to in the conceptual framework for financial reporting. In turn, reliability, associated with neutrality, ensures authenticity, transparency, and confidence in

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the information derived from a blockchain system. This study contributes to the literature with new empirical evidence, so that the pros and cons of the adoption of this technology may change the paradigm of obtaining how financial information is analyzed in more detail.

1. INTRODUCTION

Blockchain technology and cryptocurrencies are concepts that usually appear together (McComb II & Smalt, 2018; Pugna & Duțescu, 2020), however, the concepts should not be confused, as blockchain was first invented for bitcoin (Institute of Chartered Accountants in England and Wales [ICAEW], 2018). A point in history that seems to be a significant mark for cryptocurrencies is the 2008 white paper of Satoshi Nakamoto (Hamilton, 2019; Reiff, 2022; Setiawan et al, 2021; Yu, Lin & Tang, 2018), when Nakamoto (2008) presented bitcoin and blockchain technology, and its popularity is undeniable. As the issues surrounding cryptocurrencies considered more problematic were decentralization and double-spending (Bonsón & Bednárová, 2018; Chohan, 2022; Nakamoto, 2008; Sheela et al., 2023), Nakamoto (2008) proposed a solution using blockchain technology, a peer-to-peer distributed timestamp server to generate computational proof of the chronological order of transactions. Later, in 2015, a bitcoin-independent blockchain network was launched by Vitalik Buterin, Ethereum, one of the biggest applications of blockchain technology (Mihus, 2022; Klinger & Szczoanski, 2017). Through the novelty of smart contracts, it has been developed as the second largest open blockchain, whose application area has gone far beyond cryptocurrency transfer (Hamilton, 2019; Klinger & Szczoanski, 2017).

Hence, although the appearance of blockchain technology is closely related to cryptocurrencies, nowadays, is feasible to be used for other purposes (Financial Executives Research Foundation Inc. [FERF], 2018); Mihus, 2022; Klinger & Szczoanski, 2017). Financial executives expect blockchain will be used in other scenarios involving payments, like capital markets and contracts (FERF, 2018).

Its role in financial reporting implies that what makes blockchain unique is the innovation in organizing, recording, and validating the maintenance of financial information (Pimentel & Boulianne, 2020). Sheela et al. (2023) argue that blockchain technology can transform accounting and auditing practices by offering transparency, immutability, security, and decentralization, enhanced by triple-entry accounting. Through smart contracts, accounting information is recorded instantly and becomes available to all users (Bonsón & Bednárová, 2018; Hamilton, 2019). As such, it can be said that blockchain technology is a high-tech ledger (ALSaqa et al., 2019; Cardoso & Pinto, 2018; ICAEW, 2018; Pimentel & Boulianne, 2020; Yu et al., 2019). Also, for financial reporting and audit purposes, the main advantages of

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