

Blockchain Technology Adoption: Implications and Challenges

(Abstract Only)

Soumaya Ben Dhaou, United Nations University, Portugal bendhaou@unu.edu

Tatiana Zalan*, American University in Dubai, Dubai Media City, tzalan@aud.edu

Elissar Toufaily, American University in Dubai, Dubai Media City, etoufaily@aud.edu

ABSTRACT

According to the World Economic Forum, by 2025 10% of the world's GDP (currently about \$100 trillion) may be on blockchain. Blockchain technology is described as a distributed ledger technology (DLT) underpinned by five fundamental principles: decentralization, peer-to-peer transmission; transparency with pseudonymity; irreversibility of records; and computational logic. Despite blockchain's transformative potential, it is unclear how Blockchain applications are implemented across industries and product/service categories. The purpose of the paper is to discuss the general challenges, risks, and implications related to blockchain implementation and adoption by the private and public sectors. We discuss how blockchain should overcome multiple barriers—technological, governance, organizational and social—for its widespread adoption. Mainly, the regulatory uncertainty, scalability and performance, interoperability, data privacy, security, legacy systems and the skills gap barriers to adoption are examined. Moreover, the socioeconomic implications of blockchain are discussed mainly the financial, economic, social and institutional impacts.

Keywords: Blockchain technology, distributed ledger technology, blockchain implications, blockchain challenges, adoption.

*Corresponding author