

Association for Information Systems AIS Electronic Library (AISeL)

ICEB 2017 Proceedings

International Conference on Electronic Business

Winter 12-4-2017

Blockchain Technology Adoption: Implications and Challenges

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

Follow this and additional works at: <http://aisel.aisnet.org/iceb2017>

Recommended Citation

Dhaou, Soumaya Ben; Zalan, Tatiana; and Toufaily, Elissar, "Blockchain Technology Adoption: Implications and Challenges" (2017). *ICEB 2017 Proceedings*. 39.

<http://aisel.aisnet.org/iceb2017/39>

This material is brought to you by the International Conference on Electronic Business at AIS Electronic Library (AISeL). It has been accepted for inclusion in ICEB 2017 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

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