BLOCKCHAIN TECHNOLOGY FOR THE ASEAN SINGLE WINDOW

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Abstract

Purpose: The ASEAN Single Window (ASW) is a network of National Single Windows (NSWs) of the 10 member countries of the Association of South-East Asian Nations (Soesastro, 2008). The NSWs are computer networks in each country that are interlinked. The system is currently in the implementation phase. Blockchain Technology (Nakamoto, 2008) is a technology in which data is not stored on central servers but at distributed nodes. The data becomes immutable and transparent.

Blockchain technology is being implemented in Supply Chains, and the purpose of this paper is to determine whether it would be beneficial to use Blockchain Technology for the ASEAN Single Window.

Design/Methodology/Approach: Topical literature review of academic journals, business literature and other publications will be used to create a conceptual framework, combining the concepts of the ASW with the concept of blockchain, followed by a critical evaluation.

Findings: The expected finding is that the advantages of using Blockchain Technology score higher than the disadvantages.

Research limitations/Implications: This research is conceptual and based on data publicly available. Furthermore, the implementation of the ASW is already under way, and it is beyond the scope of this paper to determine the implications of changing the technology at this stage.

Practical implications: Using Blockchain Technology could improve the ASW as a whole and be beneficial to all stakeholders.

Originality/value: To the best knowledge of the author, while cloud single windows have been described (Pugliatti, 2011), the idea of using Blockchain Technology for the ASEAN Single Window is new.

Keywords: Blockchain Technology, Supply Chain Management, ASEAN, ASEAN Single Window, ASW.