

Towards Integrating Blockchain and Digital Governance Structure in Supply Chain Collaboration (SCC)

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Sarbottam Bhagat

University of North Texas
Sarbottam.Bhagat@unt.edu

Kevin Kim

University of North Texas
Kevin.Kim@unt.edu

Abstract

Supply chain collaboration (SCC) refers to a strategy in which two or more autonomous firms work cooperatively to plan and execute supply chain operation (Horvath 2005). It allows firms to achieve different levels of substantial benefits and strategic advantages such as cost reduction, service improvement, faster reaction time and efficient adaptation to changing business environment (Tsou 2013).

However, collaboration success, by large, depends on the level of partners' engagement and commitment (Thomas and Baird 1990). Additionally, differences in power, financial reasons, goal compatibility or disagreements in use of IT resources also pose challenges to SCC especially when a large and intricate network of actors, stages and locations are involved (Ralston et al. 2017). Other problems include lack of efficiency (inaccuracies, billing disputes, outright fraud and corruption), inconsistent inventory management and barriers to cross-border payments and expensive impartial third-party auditing. These challenges calls into question the transparency and trust among actors. These challenges also give rise to the problems of counterfeiting, forced labor and poor conditions in factories (Dickinson 2016).

However, it seems evident that our understanding of blockchain use-case in SCC is not aligned with what the industry demands. This study will explore the literature to identify the key success factors for ensuring optimum supply chain collaboration via blockchain integration through the lenses of digital governance and business model innovation frameworks. We believe this study will offer new theoretical and practical insights in dealing with the aforementioned key issues pertaining Supply Chain Collaboration.

Keywords

Blockchain, supply chain collaboration, digital governance structure.