

Blockchain Technology Adoption Behavior in The Supply Chain

Dr. Maher Agi¹, Ashish Kumar Jha²

¹Rennes School of Business, France

²Trinity College, Dublin

Abstract

This paper investigates the adoption of blockchain technology by firms for managing their supply chain processes. Using theoretical lenses from the contingency theory and force field theory, we performed an extensive review of the literature on blockchain applications in supply chain management and identified influential factors on the adoption of this technology in the supply chain. In total 50 influential factors including expected benefits, pressures and barriers were identified. Then, the survey method was used to collect data about these factors and blockchain adoption stage in firms. The respondents were supply chain professionals working in 180 firms in the UK. Analysis of the collected data allowed for identifying and characterizing four different clusters in the sample's firms. The clusters revealed relationships between the influential factors from different categories and blockchain adoption stage. The results of this study allowed for developing insights into the main influences on blockchain adoption in the supply chain and the ways adoption could be enhanced.

Keywords: blockchain, survey, adoption, analytics, clustering.