

The scientific objective of the research project is to reveal the effects of blockchain technology on supply chain emergence, and their resulting impact on the network rent in the transitive service triads. The proposal is based on three key theoretical pillars, including the concept of supply chain emergence, blockchain technology and the Coleman-type network rent. The combination of these three facets will provide theoretical grounds to develop conceptual frameworks, which then undergo statistical analysis. The empirical study, carried out in the transitive service triads in the European supply chains, will provide necessary data to estimate the research models. The synthetic outcome of the project is to develop a conceptual framework which theoretically accounts for and empirically evidences whether blockchain technology affects supply chain emergence, and thus contributes to yielding the Coleman network rent in the transitive service triads.

There are many important scientific premises accounting for tackling the research problem raised in the study. These premises mostly stem from the theoretical foundations which still remain at the early stage of development, and the empirical gaps in past research.

First of all, the current landscape of business is filled up with networks. Nonetheless, when investigating supply chains, prior studies usually employ the 'ego' perspective, which captures the view of only one actor in the relationship or the dyadic perspective, at best. These viewpoints significantly limit the ability to grasp the architecture of network ties. This study refers to the transitive triads as the unit of networking activity. Second, this study is one of very few that tends to empirically investigate the link between supply chain emergence and blockchain technology. Obtaining the requisite level of emergence through decentralized systems, headed towards blockchain technology, is a novel issue that draws an increasing attention when the performance of supply chains is considered. Correspondingly, while the most eminent IT systems (including the top-tier ERP systems) used in supply chains are essentially hierarchical-based structures, organized around the centralized databases, this study underscores the significance of decentralized information systems. This type of systems is capable of adding flexibility, spontaneity, and thus creativity, and innovation to the legitimate system that operates under control of traditional technology. Finally, this study is the first one that aims to empirically investigate the Coleman network rent. While, prior studies primarily aimed to investigate the network rent yielded by the middleman in the intransitive triads, mostly operating within a manufacturing setting, there were very few attempts to, at least partially, capture the Coleman network rent.

The research makes a number of key contributions. First, it provides a theoretical and methodological rationale for investigating the issue of supply chain emergence in service triads. Specifically, building upon the complexity science, the study will identify necessary theoretical foundations for investigating supply chain emergence and define a requisite balance between control and emergence – two substantial issues which are still widely unexplored. Further on, drawing on the social exchange and resource-dependent theories, the proposal will indicate necessary measures used to estimate the Coleman rent. On the empirical side, the project will unveil the research routine and subsequent steps that need to be taken to collect data, within the transitive triadic setting, derived from the buyer, supplier and customer. The other important contribution to the development of supply chain theory is offering the empirical recommendation on how to analytically estimate the Coleman rent yielded in the transitive triads. Specifically, the study will reveal a procedure comprising certain steps from the estimation of the individual performance of each actor in a triad through the calculation of relational performance at a dyadic level, and to the assessment of Coleman rent. Finally, the outcome of the study will enrich the existing supply chain theory by showing as to whether and to what extent blockchain technology promotes the balance between control and emergence and how it affects the Coleman rent in the transitive service triads.