Industry 4.0: Cloud Computing and Global Value Chains

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Abstract

Recent years have witnessed a growing academic interest in the emerging field of Industry 4.0, especially in Cloud Computing which supports this vision. Cloud Computing opened an opportunity to enhance the production process from isolated manufacturing activities to fully-integrated data and product flows across borders. The potential impact of Cloud Computing is a transformation of the location and organization of manufacturing production worldwide (Lasi et al., 2014; Sirkin et al., 2014). The implication of Cloud Computing to international business (IB) research is how multinational enterprises (MNEs) decide to locate production based on increased labor productivity and reduced labor costs. Another implication of new technology is that it blurs boundaries between products and services, allows easy integration for small and medium-sized enterprises (SMEs) to enter global markets. However, we are still lacking appreciation as to how the introduction of these technologies in support of the Cloud Computing vision will affect the inter-organizational relationships between multinational enterprises (MNEs) in the context of global value chains. The research aims to fill this gap by systematically reviewing existing literature published between 2011 and 2019 in the area of “Cloud Computing”. The results from the review are analyzed through the theoretical lens of Gereffi’s governance model of global value chains (GVCs). The review confirmed the lack of detailed and holistic assessment of the overall impact of Cloud Computing on inter-organizational relationships in the area of international business studies. Despite this, the published research papers provide indications about the impact of Cloud Computing on specific parameters from Gereffi’s framework, and this allows us to draw conclusions about the technology impact on inter-organizational relationships. Published research literature suggests that Cloud Computing technology drives inter-organizational relationships towards the captive or hierarchy type, depending on the level of ability to codify transaction.

References (optional)

