Session 11
Green Operations and Sustainable Supply Chain Management

How environmentally specific transformational leadership promote employee task effectiveness? A multistage moderated mediation model

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Abstract

The volatile environment caused by the COVID-19 turned to add the possibility for sustainable development consistently on the worldwide. The countries on the Belt and Road, especially share similar environment and climate problems. China as the initiator of the theory, should be responsible for the cutting edge research of “Carbon neutrality”. Under such circumstance, how to achieve the dynamic balance of saving energy with job performance should be critical. Therefore, this study aims to propose and explore the driving mechanism of the novel concept of environment-oriented employee task effectiveness (In-role green performance and organizational citizenship behaviours for the environment) by focusing on how the cognition and explanation of employees’ organizational human resource procedures, team leadership and individual psychology influence their behavioural tendencies from a micro level. Drawing insights from the literature of human resource management and psychological climate, our research develops and tests a multistage moderated mediation model to investigate the influence of green transformational leadership on environmentally-oriented employee task effectiveness via green psychological climate.

We conduct the hierarchical regression analysis with a sample of 343 leader-employee dyads from 76 work teams of 12 manufacturing firms in China to test our theoretical hypotheses. The results reveal that green transformational leadership has a direct and positive effect on environmentally-oriented employee task effectiveness, which is partially mediated by green psychological climate. Further, this study suggests that green human resource management moderates the positive direct/indirect effect of green transformational leadership on environmentally-oriented employee task effectiveness in the first stage, such that both the positive direct/indirect relationships are stronger when green human resource management is in high level. In addition, we also find pro-environmental goal clarity moderates the positive direct relationship between green psychological climate and environmentally-oriented employee task effectiveness, as well as the positive indirect effect of green transformational leadership on environmentally-
oriented employee task effectiveness via green psychological climate in the second stage. As the level of pro-environmental goal clarity rise, such direct/indirect effect is stronger. The results of this study provide important and valuable enlightenments for the underlying psychological mechanism and boundary spanners of the effect of environmentally-oriented leadership style on employees' environmental behaviour. The implications and limitations of the study, as well as directions for future research are discussed.
Barriers and Enablers of Supply Chain 4.0 implementation in manufacturing industry in Vietnam

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Abstract

Supply chain (SC) has been stressed by more severe market competition, cost pressures, changing customers’ demand for shorter time to market and personalization of products and services (Tripathi and Gupta, 2019; Makris, Hansen and Khan, 2019) and especially by the unexpected and uncontrollable events such as the spread of the Corona Virus that has caused undefinable disruptions in the SC worldwide. With the rise of digital technologies such as Big Data, 3D printing, etc. which is referred as Industry 4.0 (I4.0) or the 4th Industrial Revolution (Taliaferro, Guenette and Ankit Agarwal, 2016), these SC disruptions can be managed. This trend leads to Digital Supply Chain (DSC) or the so-called Supply Chain 4.0 (SC4.0). Despite a significant attention and acknowledgement devoted to I4.0 by developed countries such as Germany, Japan, and China (Liao et al., 2017), relatively little consideration has been given to I4.0 technologies’ disruption on SC in emerging economies (Frederico et al., 2019). In the face of this challenge, Vietnam has prioritized I4.0 as a prominent growth driver of the sustainable economic development. It is, therefore, imperative for the country to quickly to identify and adopt an appropriate SC 4.0 adoption model.

Among extent technology adoption models, Technology – Organisation – Environment (TOE) framework (Tornatzky and Fleischer, 1990) has emerged as an appropriate theoretical model for SC 4.0 adoption that takes the views of technological attributes, organisational context, and the organisation’s external environment (Arnold and Voigt, 2019). As TOE often neglects the impact of inter-organisational relationships (IOR) (Chan and Chong, 2013) while I4.0 adoption into the SC requires the co-adoption of all SC members. Therefore, IOR model plays an important role as they influence the co-adoption decisions. Hence, TOE and IOR serve as the theoretical models of the research to investigate the impact of enabler and barriers factors to the implementation of I4.0 in SC in Vietnam.

Additionally, some researchers suggest that the challenges in adopting technologies lie in the contextual variable - organisational culture (Kagumba and Wausi, 2018; Melitski, Gavin and Gavín, 2010). As claimed by Mohtaramzadeh, Ramayah and Jun-Hwa (2018), different types of organisational cultures are associated with different underlying values, assumptions and expectations that can have direct or indirect impact on technology adoption of firms. Particularly, organisational culture can weaken or strengthen the influence of antecedent variables on technology adoption.
Therefore, in this research, four types of organisational culture are seen as a moderator in the relationship between TOE and IOR factors and the organisation’s technology adoption decision. Draw on the extant literature in effect of organisational culture on innovation adoption, the current research adopts the flexibility-control-oriented framework in the Competing Values Model (CVM) proposed by Quinn and Rohrbaugh (1983). The research aims to find out the barriers and enablers of SC 4.0 implementation in the context of different organisational culture settings in Vietnam. The research’s model is illustrated in figure 1 below.

References


Sustainable Supply Chain Orientation in the Fashion Industry: A Systematic Literature Review

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Abstract

Supply chain orientation is a predisposition among chain members to position and align their supply chain in an integrated way. The alignment facilitates shared and common interests across internal and external linkages in the supply chain. With increasing need for businesses to meet sustainability objectives, the notion of supply chain orientation is being extended to incorporate sustainability, hence the emergence of sustainable supply chain orientation. The relevance of sustainable supply chain orientation to the fashion industry is explored in this paper. This is accomplished through a systematic literature review that focuses on identifying the conceptualisations of sustainable supply chain orientation and uses the findings to explore the relevance of the notion to the fashion industry. The sample of papers found in the literature, indicates that the first publication on the subject of supply chain orientation appeared in the early 2000s, and the prominence supply chain orientation literature has been increasing, particularly in the last couple of years. Publications regarding supply chain orientation is found to spread across 28 countries, with the United States of America publishing the most frequent. The results establish that supply chain orientation is a precursor to supply chain management, and subsequently influences performance. The main constructs of supply chain orientation found in the literature are made up of six behavioural dimensions; commitment, organisational compatibility, top management support, credibility, benevolence and norms. The results also show that the conceptualisation of supply chain orientation has recently been extended to include new constructs relating to sustainability, namely; environmental orientation, green orientation and social orientation. Also noted in the review is the temporalness of orientation, which particularly includes long-term orientation. Amongst the few empirical studies on supply chain orientation is the evidence that that some industrial sectors, such as ports, are supply chain orientated. The significance of the sustainable supply chain orientation measures may differ across sectors. A key characteristic of sustainable fashion supply chain is their business models which, in this paper, is conceptualised on a spectrum that ranges from; ultra-slow to ultra-fast fashion models. Slow fashion business model incorporates a supply chain where fashion products are designed, produced, marketed and sold in the most sustainable or renewable way possible, to ensure a minimal social and environmental impact. Whilst, fast fashion business model is a strategy that creates an efficient supply chain producing fashion products rapidly and in vast quantities in order to quickly respond to consumer demand. However,
such an agile and vast production process has a significant environmental and societal impact on the planet, leading stakeholders to apply increasing pressure to the fashion industry to adopt sustainable supply chain practices. It is postulated in this paper that the fashion industry needs to recognise the established conceptualisations of sustainable supply chain orientation found in the literature, and decide on their orientation with considerations of how they are positioned on the fashion business model spectrum. It is recommended as future work, that this reasoning regarding sustainable supply chain orientation in the fashion industry should be validated empirically.