

Chapter 12

Sustainable Supply Chain Learning and Employee Green Creativity: Implications for Disruption Management and Green Competitiveness

Innocent Senyo Kwasi Acquah

 <https://orcid.org/0000-0002-6332-3005>

Department of Marketing and Supply Chain Management, University of Cape Coast, Ghana

Charles Baah

 <https://orcid.org/0000-0002-4959-7851>

Charles Darwin University, Australia

Yaw Agyabeng-Mensah

Dalian Maritime University, China

Ebenezer Afum

Transportation Engineering College, Dalian Maritime University, China

ABSTRACT

Exploring ways to maintain and safeguard supply chain operations and performance is essential in today's business environment. Learning from the COVID-19 pandemic situations shows that current or traditional supply chain management strategies are less potent in managing supply chain disruption. The study adopted the partial least square structural equation modelling (PLS-SEM) technique to make data analysis and interpretations because it is considered suitable for predictive research models. Scrutiny of the data showed that sustainable supply chain learning is a critical antecedent for employee green creativity. Both were fundamental to managing supply chain disruptions, promoting green competitiveness and increasing economic performance. Remarkably, among sustainable supply chain learning and employee green creativity, the latter was most robust in predicting disruption management, green competitiveness, and economic performance.

DOI: 10.4018/978-1-7998-9715-6.ch012

INTRODUCTION

Supply chains, learning from the COVID-19 pandemic, economic reverberations have ensued supply chain disruptions across industries, with some yet to recover from the shock (Sarkis, 2021) fully. The origins of the COVID-19 pandemic further provide evidence that businesses and their supply chain networks are embedded in the natural environments. Environmental impacts have repercussions for business operations (El Baz & Ruel, 2020; Sarkis, 2021). El Baz and Ruel (2020) suggested that the pandemic significantly impacted supply chains. The authors further categorised these effects into operational and disruption risks. Although past scholars have emphasised the impacts of operational risks in the supply chain context, less emphasis is on disruption risks. This is partly due to their low frequency yet high impacts, high uncertainty and rippling effects across supply chain networks and beyond (El Baz & Ruel, 2020; Hosseini, Ivanov, & Dolgui, 2019; Ivanov, 2020; Sarkis, 2021).

Explaining further, the real social, economic and political disruption from the pandemic has triggered several scholars and practitioners to engage in studies and practices that aim to alleviate the dire impacts faced by firms in the COVID-19 era (Araz, Choi, Olson, & Salman, 2020; Fahimnia, Jabbarzadeh, & Sarkis, 2018; Xu, Zhang, Feng, & Yang, 2020). According to Guan et al. (2020), the pandemic crisis shock on supply chains was profound across global networks affecting the core of demand and supply. These shocks have stirred the call for sustainable and resilient supply chains perceiving that some practitioners and scholars (El Baz & Ruel, 2020; Hosseini et al., 2019; Ivanov, 2020; Sarkis, 2021) are debating if current traditional supply chain strategies and policies can survive the post-COVID-19 era. These debates have guided the relevance of sustainable supply chain learning and green creativity among firms' employees in this digitised era. Digitisation has improved the access, storage, and processing of significant amounts of data. Yet, creating an supply chain learning based integrated conceptual model for such digitisation processes and data can be crucial for organisations in enhancing agility and adaptability (Yang, Jia, & Xu, 2019). Hence, relying on the extended resource-based view, the authors emphasised that supply chain learning promotes crucial information and data sharing that profoundly shapes employee responsiveness, creativity and overall firm performance. Jia, Gong, and Brown (2019) assertions, also harmonising with Yang et al. (2019), specify that supply chain leadership through supply chain learning promotes sustainable chain management, which also crucially improves employee creativity. These scholars' assertion indicates that in the quest to improve supply chain resilience and sustainability, supply chain learning and employee green creativity can be critical weapons in achieving desired outcomes. Despite the recognition, only a few studies come close to integrating and assessing the correlations between sustainable supply chain learning and employee green creativity, especially from the COVID-19 perspective.

While supply chain learning is widely defined, sustainable supply chain learning is a novel concept that lacks a consensus as to its definition (Haq, Gu, & Huo, 2020; Yang et al., 2019). Haq et al. (2020) defined supply chain learning as the procedure of a focal firm acquiring, assimilating, and exploiting information and knowledge across internal functions and from key suppliers and customers. Huo, Haq, and Gu (2020) also asserted that supply chain learning integrates and synergises information from the acquisition stage to the usage stage in supply chains. From these scholars, this study defines sustainable supply chain learning as acquiring, assimilating, and exploiting sustainable information to improve green functions and satisfy the sustainable demands of customers and suppliers. Furthermore, Wieland, Handfield, and Durach (2016) posited that despite extant literature on supply chains, the employees or human aspects of supply chains still lack rigorous study, making it one of the most overlooked research

17 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/sustainable-supply-chain-learning-and-employee-green-creativity/306351

Related Content

Trust in Procurement Decisions of New Zealand SMEs: A Repertory Grid Analysis

Kripanshu Vora (2022). *Logistics and Supply Chain Management in the Globalized Business Era* (pp. 24-50).

www.irma-international.org/chapter/trust-in-procurement-decisions-of-new-zealand-smes/292993

Supply Chain Resilience

Alessandra Vecchiand Valentina Vallisi (2016). *Handbook of Research on Global Supply Chain Management* (pp. 147-160).

www.irma-international.org/chapter/supply-chain-resilience/141141

Supply Chain Simulation using Business Process Modeling in Service Oriented Architecture

Taejong Yoo (2015). *International Journal of Information Systems and Supply Chain Management* (pp. 30-43).

www.irma-international.org/article/supply-chain-simulation-using-business-process-modeling-in-service-oriented-architecture/129690

Forecasting Demand with Support Vector Regression Technique Combined with X13-ARIMA-SEATS Method in the Presence of Calendar Effect

Malek Sarhaniand Abdellatif El Afia (2014). *International Journal of Applied Logistics* (pp. 74-86).

www.irma-international.org/article/forecasting-demand-with-support-vector-regression-technique-combined-with-x13-arima-seats-method-in-the-presence-of-calendar-effect/121754

Managing Cost of Quality in Supply Chains: Arctic North Inc., Montreal Case Study

Ali Ghandour (2020). *Handbook of Research on Interdisciplinary Approaches to Decision Making for Sustainable Supply Chains* (pp. 231-249).

www.irma-international.org/chapter/managing-cost-of-quality-in-supply-chains/241336