

Chapter 78

An Empirical Study to Understand the Effect of Supply Chain Agility on Organizational Operational Performance: SC Agility and Organizational Performance

Rayhaneh Nazempour

University of Science and Technology Beijing, China

Jianhua Yang

University of Science and Technology Beijing, China

Abdul Waheed

University of Science and Technology Beijing, China

ABSTRACT

To bring agility in supply chain operations is a critical factor for firms in order to meet customers' requirements in an effective and productive manner. Several researchers have been argued that agility has become a prime driver of competitiveness. However, agility with respect to supply chain was not extensively studied, especially less attention was paid to empirical work. This article attempts to fulfill such need by investigating the relationship between supply chain agility (SCA) and organizational performance (OP) in the context of Iran. Primary data were collected through surveys distribution to 500 SC managers of all levels in Iranian SMEs. Subsequently, hypotheses were tested through SPSS and Structure Equation Modeling (SEM). The findings revealed a positive relationship between SCA and OP along with positive relationships of each dimension of SCA (e.g., alertness, decisiveness, flexibility, accessibility, and swiftness). This article ensures that organizational OP might be improved by focusing SCA in the today's competitive environment.

DOI: 10.4018/978-1-7998-0945-6.ch078

INTRODUCTION

In today's competitive era and business world, to bring operational efficiency in logistics processes has become a prime driver of competition in improving customers' service (Gligor, Holcomb, & Stank, 2013; Xiaomin & Yi, 2017). Agility plays a crucial role in supply chain management (SCM) that facilitates the operational activities due to its flexibility, alertness, and swiftness (Gligor, 2016; Gligor et al., 2013). Nowadays, there is an extreme pressure on organizations how to improve operational efficiency by managing uncertainties in distinct supply chain stages (Gupta, Goh, De-Souza, Meng, & Garg, 2014; Mohammadi & Mukhtar, 2017). Such pressure may include during the introduction of new product, understanding customers' need, delivery of a product, product lifecycle, agitation from the shareholders for a higher return on investment (ROI), and during the development of manufacturing processes (Blome, Schoenherr, & Rexhausen, 2013). Agility is a flourishing concept that assists to promote all operations of the organizations, including logistic operations of supply chain management (Gligor, 2016; Gligor et al., 2013).

According to experts, time is a competitive weapon where supply chain agility facilitates the logistic operations to deliver the product in a timely manner (Chiadamrong & Tham, 2016; Christopher, 2000; Tarafdar & Qrunfleh, 2017). Supply chain agility is a market sensitive and consists of diverse networks, processes, and virtual supply chains (Christopher, 2000). The agility assists to bring a dynamic change in the operational activities (Dove, 2002; Mangan & Lalwani, 2016). According to Lee (2004), agility is known as a most significant component of the SCM. Over the past few decades, several researchers have categorized supply chain agility into unlike dimensions, including cognitive and physical dimension (Gligor et al., 2013). The concept of agility is entirely different relatively than effectiveness, efficiency, lean, and proactive supply chains (Power, Sohal, & Rahman, 2001). According to Christopher (2000), there is a distinction between speed and agility where speed is concerned to meet customers' demand pertaining to shortened lead time. While agility is related to quick response on sudden customers' demand concerning to variety and volumes (Christopher, 2000). According to Power et al. (2001), agility in the supply chain operations can bring the positive outcomes for firms.

To deliver a timely product is a core competency of SCM which might be possible by integrating responsiveness and efficiency (Christopher, 2000; Lau & Wang, 2013). In contrast, Supply chain agility helps to improve organizational performance such as financial performance, operational performance, non-financial performance, and overall firms' performance (Blome et al., 2013; Chan, Ngai, & Moon, 2017; DeGroote & Marx, 2013; Gligor et al., 2013; Yusuf et al., 2014). Over the past decades, the empirically testing between supply chain agility and corporate performance, especially toward operational performance was not well-examined consequently no well-known study found examining the relationships between supply chain agility and operational performance within the Iranian SMEs. This is one of pioneer studies on supply chain agility that attempts to contribute to the respective literature measuring the empirical nexus between supply chain agility and operational performance with a comprehensive examination of each dimension of supply chain agility.

Operational performance is associated with operational activities in which management attempts to achieve organizational goal bringing efficiency among all the business operations (Acar, Zaim, Isik, & Calisir, 2017; Uhrin, Bruque-Caimara, & Moyano-Fuentes, 2017). There are unlike risks and uncertainties are associated with organizations and it is a core competency to manage the operational performance by working together and managing distinct SC risks to achieve common goals (Gligor et al., 2013; Gupta et al., 2014; Liao, Bayazit, & Wang, 2014). Risk management is essential capability of

21 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/an-empirical-study-to-understand-the-effect-of-supply-chain-agility-on-organizational-operational-performance/239346

Related Content

Application of Hybrid VIKOR Model in Selection of Maintenance Strategy

M. Ilankumaran and S. Kumanan (2012). *International Journal of Information Systems and Supply Chain Management* (pp. 59-81).

www.irma-international.org/article/application-hybrid-vikor-model-selection/65546

Practice of Green Supply Chain Management and Organization Performance in the Manufacturing Industries of the Kathmandu Valley

Seepata Parajuli, Ruby Shrestha, Nirajan Devkota, Sashi Rana Magar, Sharad Rajbhandari and Udaya Raj Poudel (2022). *Cases on Supply Chain Management and Lessons Learned From COVID-19* (pp. 146-163).

www.irma-international.org/chapter/practice-of-green-supply-chain-management-and-organization-performance-in-the-manufacturing-industries-of-the-kathmandu-valley/295719

Solving Flow Shop Scheduling Problems with Blocking by using Genetic Algorithm

Harendra Kumar, Pankaj Kumar and Manisha Sharma (2019). *International Journal of Applied Logistics* (pp. 20-38).

www.irma-international.org/article/solving-flow-shop-scheduling-problems-with-blocking-by-using-genetic-algorithm/230984

Virtual Organization of Supply Chains

Zlatko Nedelko and Vojko Potocan (2015). *Optimization of Supply Chain Management in Contemporary Organizations* (pp. 198-217).

www.irma-international.org/chapter/virtual-organization-of-supply-chains/125941

Management of Environmental Issues in Port Activities: The Hellenic Case Study

Georgios Palantzas, Aristotelis Naniopoulos and Christoforos Koutitas (2014). *International Journal of Information Systems and Supply Chain Management* (pp. 40-55).

www.irma-international.org/article/management-of-environmental-issues-in-port-activities/106826