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ScienceDirect

Procedia - Social and Behavioral Sciences 238 (2018) 9 – 18

Procedia
Social and Behavioral Sciences

SIM 2017 / 14th International Symposium in Management

Supply chain monitoring: LLPs and 4PL providers as orchestrators

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Abstract

In the past three decades, many firms have chosen to outsource logistics operations management to specialized suppliers called logistics service providers (LSPs). This managerial reality has been described and analyzed extensively in academic studies in marketing, strategic management and logistics management. More recently, a new generation of providers, called LLPs (*lead logistics providers*) and 4PL (*fourth party logistics*) providers, have radically altered the logistics industry. They notably offer complete logistics service without necessarily possessing the physical assets (means of transport, warehouses, etc.). These providers are gradually becoming orchestrators within supply chains. This article explores this little known reality that portends a strategic disruption, based on a case study of a global LSP.

Peer-review under responsibility of SIM 2017 / 14th International Symposium in Management.

Keywords: Lead logistics provider (LLP); Fourth party logistics (4PL) provider; Kuehne+Nagel; Logistics service provider (LSP); Network organizations; Outsourcing; Strategic management; Supply chain management (SCM).

1. Introduction

The logistics industry has undergone an unprecedented evolution for at least three decades, in terms of geographic reach (initially Europe, North America, and Asia, and more recently North Africa and South America) and of transformation of the role of logistics. Transport or warehousing specialists have long been considered more than simple executors of logistics operations for their clients. In the current economic system, particularly since the

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Peer-review under responsibility of SIM 2017 / 14th International Symposium in Management.
doi:10.1016/j.sbspro.2018.03.002

1980s, many transport actors have become pivotal to contemporary logistics plans. By expanding their offer of value-added services, these logistics service providers (LSPs) even enable numerous shippers in industry and large retailing to implement their development strategies at the national and international levels.

The LSP traditionally fulfils the function of logistics intermediary by arranging storage, order preparation and final delivery of products for its customers. It is ideally placed to organize pooling of logistical resources, and thus help supply chains achieve substantial economies of scale and scope. Studied extensively for years in academia (Fulconis, Paché & Roveillo, 2011), the LSP sector has witnessed the rise of an innovative category that disrupts the previous business models: lead logistics providers (LLPs) and fourth party logistics (4PL) providers. The latter result from a process of slow complex maturation punctuated by a series of organizational innovations. Arthur Andersen Consulting, which became Accenture, was the first to introduce the notion of 4PL provider, in the mid-1990s. Since then, the literature has avidly embraced this subject.

As orchestrators, LLPs and 4PL providers organize and coordinate flows of products for shippers, by mobilizing the logistical capacities of a large number of subcontracting firms. Whereas the managerial literature has quickly grasped this phenomenon, the emerging character of this new generation of LSP, marked by dematerialization of logistical services, remains largely unknown and underexplored. The objective of this paper is to shed light on the ongoing evolution of the role of LSP through an organizational and strategic approach toward steering of business-to-business logistical flows (section 2), and to analyze the competitive advantage of LLP and 4PL provider, supported by a case study (section 3). The conclusion applies the metaphor of improvisation within jazz ensembles to highlight the originality of the current evolutions in supply chain monitoring (section 4).

2. LLP and 4PL provider-From an inter-organizational perspective

For many years, academic studies of logistics outsourcing have explored the reasons that shippers outsource, along with the nature of outsourced activities and the firms that manage some or all of these activities. The perspective adopted is that of a technical negotiation between buyers and sellers of logistics services, notably entailing the definition of specifications, formalization of contractual clauses and renewal or termination of the outsourcing relationship. Although this perspective is still relevant, it cannot provide a sufficiently robust framework to encompass the evolution of logistics outsourcing, particularly the emergence of a new family of LSP whose competency is mainly to monitor supply chains, specifically supply chain networks. These new LSPs are no longer mere executors of outsourced logistic activities. On the contrary, they coordinate flows, which makes them a driving force behind proposals in the logistics reengineering process. Rather than owning physical assets, they mainly or uniquely possess orchestration skills.

2.1. The LSP, between chain and network

The supply chain refers to multiple actors that interact recurrently to carry out all the activities related to production and provision of products to customers. In an increasingly complex, competitive, turbulent, and globalized environment, it is crucial to understand how industrials, large retailers, component suppliers, wholesalers and LSPs interact to manage the flow of merchandise and information effectively. Many LSPs now fuel the development of emerging countries by implementing major infrastructures to improve the performance of procurement and deliveries. For instance, SME in Romania benefit from the expertise of foreign LSPs that have invested massively in storage and transportation capacities for several years (Kherbach & Mocan, 2016). Among the more significant changes in the structuring mode of supply chains, the emergence and consolidation of LSPs on the global scale are particularly noteworthy. Long limited to basic and technical activities of transport and storage, which create little added value, the logistics industry has become much more prominent. World-class LSPs like XPO Logistics, Kuehne+Nagel, Geodis and DHL can now provide postponement services that resemble those of assembly plants. The growth of LSPs results from the outsourcing of transportation and logistics activities driven by shippers for over three decades. Today, this reality is well known, and has been covered extensively in many works (Fulconis, Paché, & Roveillo, 2011). In parallel, definitions of LSP have burgeoned. The model of 3PL provider, LLP and 4PL provider, to which a growing body of literature is dedicated (Hingley, Lindgreen, Grant, & Kane, 2011; Huang, Tu, & Xu, 2013; Saglietto & Cézanne, 2015), constitutes one of the most emblematic illustrations of this phenomenon (see Exhibit 1).