

# Chapter 98

## Selection and Evaluation of 3PL Providers: A Conceptual Decision-Making Framework

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### ABSTRACT

*As supply chains continue to globalize, the need for robust Third Party Logistics (3PL) provider qualification, selection, and evaluation programs becomes increasingly critical. In this context, this chapter aims to present a methodological approach for the optimization of this specific type of outsourcing operations in today's globalized supply chains. More specifically, the authors first present an analytical literature review of the criteria and the methods that are employed in this field of decision-making, and then propose a generic methodological framework for the 3PL partner selection and evaluation problem. This framework is constituted by a nine-phased conceptual decision-making methodology that outlines the whole life cycle of the 3PL provider selection and continuous evaluation processes.*

### INTRODUCTION

Outsourcing of the main logistics operations (i.e. transportation and warehousing) is traced back to the 1960s. However, only in the early 1990s due to the advent of internet and of the globalization

of the world economy, logistics service providers started offering consolidated services and an increasing number of customers committed into longer business contractual agreements with them. The logistics service industry has evolved considerably over the past fifteen years. Competing in a highly fragmented, high growth market, and

DOI: 10.4018/978-1-4666-2625-6.ch098

due to the increased demand for lead logistics providers and the emergence of new technology, Third-Party Logistics (3PL) providers resort massively to consolidations and provide integrated services (Gordon, 2003). 3PLs include brokers, freight forwarders, rail transporters, consolidators, shippers and air cargo agents.

Today, the outsourcing of the logistics operations is a strategic business option that may constitute a significant corporate competitive advantage. Outsourcing plays a pivotal role in the current global logistics strategies for the attainment of a plethora of objectives such as reductions in the lead times, effective new market penetration and increased flexibility in operations (The Corporate Executive Board Company, 2001). Detailed contracts that include clear expectations and metrics, and ensure that the logistics service providers will be able to meet service-level commitments and invest in continuous improvement and innovation, are pivotal for strong relationships between firms and their 3PL partners.

As supply chains continue to globalize, the need for robust 3PL provider qualification, selection and evaluation programs becomes increasingly critical. Firms outsource a wide range of logistics services and the most frequent ones are international and domestic transportation, followed by warehousing, freight forwarding, customs brokerage, and reverse logistics (Langley Jr & Capgemini, 2011). When a logistics service provider is able to provide improved service levels at lower costs, and/or when there is a risk to perform a logistics task in house, then the option to outsource is generally appealing (Iakovou, Vlachos, & Xanthopoulos, 2009). On the other hand, reasons for not using 3PL services include among others: logistics being considered a core competency of the company and thus too important to be outsourced, the belief that cost reductions would not be realized and the concern that the control over the outsourced logistics functions would diminish.

The contemporary financial crisis and the pressures posed by globalisation have formed a more complex framework regarding the selection of a 3PL provider. It is well documented that as the number of buyers of logistics services increase, the more the extent of the relative service requirements (Gupta, Sachdeva, & Bhardwaj, 2011). The selection criteria of a potential 3PL provider respond to different requirements and are tailored to the specific needs of each organization seeking for a 3PL partnership. Besides the criteria, it is essential for corporate stakeholders to take into account the contract agreements as well (Aktas & Ulengin, 2005).

In this context, this chapter aims to present a methodological approach for the optimization of this specific type of outsourcing operations in today's globalized supply chains. More specifically, we first present an analytical literature review of the criteria and the methods that are employed in this field of decision-making, and then propose a generic methodological framework for the 3PL partner selection and evaluation problem. This framework is constituted by a nine-phased conceptual decision-making methodology that outlines the whole life cycle of the 3PL provider selection and evaluation processes, i.e. from the initial selection and evaluation of each candidate 3PL provider, till the continuous evaluation of the selected ones and the periodic re-evaluation of all the potential 3PL providers.

The rest of the chapter is organized as follows. In the next section we present a brief literature review of the past research efforts dealing with the 3PL provider selection and evaluation problem. We then present a framework of 3PL selection criteria and 3PL evaluation and selection methods. Following we provide the proposed conceptual decision-making framework, while in the final section we provide conclusions and directions for future research.

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