

Impact of lean supply chain strategies and third-party logistics (3PL) outsourcing on the supply chain performance

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This research fills a knowledge gap in the contemporary topics on lean supply chain strategies, third party logistics (3PL) outsourcing and on supply chain performance. According to the published literature, most organizations' objective of outsourcing logistics is to achieve at least 20 percent cost reduction. The practice of 3PL outsourcing is a growing trend; especially in Asian countries. This study examined the significance of the relationship among the variables; Lean supply chain strategy, Supply chain performance, Strategic partnership with 3PLs and 3PL offerings in terms of the competency of the 3PL; which were measured using a defined set of questions, scored in 1-5 Likert Scales. This research has been designed as a mixed method research, involving both quantitative and case study research approaches. The quantitative study analysed 106 usable responses out of 250 of population. The unit of analysis is manufacturing organizations in Sri Lanka who have outsourced at least one of their logistics activities to 3PL(s), and respondents were middle level managers. Structural Equation Modelling (SEM) technique was used to analyse the data using SmartPLS. The qualitative data were collected through several interviews carried out among the key personnel in a leading thread manufacturing company and its respective third party services provider, and analysed as a case study in order to further verify the findings of the quantitative analysis. The study finds that there is a mediating effect (partial) of strategic partnership with 3PLs on the relationship between lean supply chain strategy and supply chain performance. Further to that, the competency of the 3PL has influenced in increasing (moderating effect) the supply chain performance of the focal firm irrespective of the scope outsourced. The qualitative study reveals that lean practices resulted in bringing down the manufacturing costs, inventory holding costs, improving delivery accuracy and information visibility across supply chain partners, after outsourcing the activities. The findings of this study helps managers to identify how to yield benefits from outsourcing and most specifically, the importance of having a strategic partnership with 3PLs and involve them in the strategic planning.

Keywords: 3PL competency, 3PL outsourcing, Lean supply chain practices, Strategic partnership, Supply chain performance