Inter Organizational Relationships Performance in Third Party Logistics: conceptual framework and case study

Romana Aziz¹, Jos van Hillegersberg¹, Kuldeep Kumar²

¹ Department of Information Systems and Change Management, University of Twente {r.aziz, j.vanhillegersberg}@utwente.nl
² Department of Decision Sciences and Information Systems, College of Business Administration, Florida International University, USA kumark@fiu.edu

Extended abstract: This paper presents some of the results of the Inter-organizational Supply-chain EAsing (ISEA) project which was targeted at improving control and coordination in buyer – supplier relationships between Shell Chemicals Europe (SCE) and their portfolio of logistic service providers (LSPs). ISEA project was embedded in the larger Transumo Diploma project which was funded by the Dutch Government (www.transumo.nl).

At the time of this research SCE was experiencing day-to-day firefighting, which occurred when unresolved issues bounced back from the LSPs to SCE’s staff. Moreover SCE was also facing difficulties in managing their relationships with the LSPs. SCE did not feel that they had enough leverage over their LSPs and they did not understand why some LSPs were causing more work relative to other LSPs. The senior SCE managers were wondering if they had contracted the right mix of LSPs.

ISEA project investigated the buyer supplier relationships in third party logistics from four related angles, i.e., why some LSPs perform better than others? how can we select an optimum LSP portfolio and how can we improve the performance of portfolio by reallocating volume levels among LSPs? what process and IT related issues negatively impact logistics process? and how can we solve issues that negatively impact logistics process?

This paper presents a part of our research conducted along the first theme, i.e., why some LSPs perform better than others? In this paper our main research question is how can we analyze and understand the relationship performance of a shipper with its network of LSPs? The main research question leads to three sub questions: 1) What are the main factors that affect inter organizational relationship performance in third party logistics? 2) How do these different factors affect performance in third party logistics? and 3) How do these factors affect relationship performance in a real life context? We developed a conceptual framework to answer the first two sub questions and this framework served as a conceptual lens for our empirical research in the form of a case study to answer the third sub question.

Based on review and integration of current literature and exploratory interviews with practitioners we propose a conceptual framework and propositions centered on inter organizational relationship performance factors in third party
logistics. Five main dimensions of inter organizational relationships are identified which affect performance in third party logistics:

1. Commitment: Based on information sharing, goal congruence, power imbalance in favor of shipper and trust.
2. Adaptation: Based on supplier dependencies and learning orientation.
3. Conflict resolution: Based on control and relational norms.
4. Compatibility: Based on planning capabilities, IT use and management structure.
5. Communication: Based on quality and formality.

In order to assess the validity of our conceptual model we include a case study in this paper. The case study is based on Shell Chemicals Europe and their portfolio of seventeen third party logistic service providers. The data for this case study was collected via observation, interviews, documents and questionnaires. The data collected during the case study generated insights that confirmed our proposed propositions.

The main contribution of this paper is in the form of an original framework describing the elements of relationships that affect performance in third party logistics. The findings presented in this paper are relevant for practitioners and academics. Practitioners can use these findings as a prescriptive resource while targeting their efforts for performance improvement in logistics outsourcing and use these insights to develop effective relationship management strategies. Our contribution for the academics is in the form of a conceptual framework and propositions for relationship performance factors in third party logistics and testing of propositions in a qualitative case study. The framework and the propositions can serve as a useful basis for the development of a more general theory for relationships development in third party logistics.

**Keywords:** Third party logistics, logistics performance factors, inter organizational relationships, logistics portfolio.