

A Review on Collaborative Logistics ^{*}

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Abstract

Collaborative logistics is becoming more important in today's industry. This is driven by increased environmental concerns, heightened competitive pressure on a global scale, improved efficiency through collaborative planning supporting resources sharing and new business models implementation. This paper presents a survey of contributions to the field of collaborative logistics. It first describes current opportunities in collaborative planning. It then discusses main issues related to building the coalition, sharing resources and benefits, as well as issues related to information and decisions technologies. Business cases are described and used to support the discussion around the main issues. Finally, questions are raised, opening new paths for researchers in the field.

Key words: Logistics, Coalition, Cost Allocation, Collaboration, Vertical and Horizontal Cooperation

1 Introduction

In this paper, we will discuss main issues related to collaboration between companies when dealing with logistics and transportation. Logistics and transportation are activities that provide many opportunities for collaboration between companies. This collaboration, either through information or resource sharing, aims to reduce the cost of executing the logistics activities, improve service, gain market shares, enhance capacities as well as protect environment and mitigate climate change [47]. Collaboration occurs when two or more entities form a coalition and exchange or share resources (including information), with the goal of making decisions or realizing activities that will generate benefits that they cannot (or only partially) generate individually. As illustrated in Figure 1, collaboration can range from information exchange, joint planning, joint execution, up to strategic alliance (e.g. co-evolution) [18]. As collaboration becomes more strategic, typically more resources are involved and sensitive information is shared between the collaborating entities.

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