

A Trust Framework for Agents' Interactions in Collaborative Logistics

Morice Daudi, Jannicke Baalsrud Hauge & Klaus-Dieter Thoben

Abstract

Trust is an essential factor for successful resource sharing in logistics. To build and sustain trust among collaborating partners in logistics requires, amongst others, conceptualizing on various aspects constituting underlying mistrusts. The conception is achieved by setting up a framework describing trust-based collaborative interactions of these partnering entities, referred to as *agents*. This research establishes a trust framework addressing agents' trustworthy interactions and thus aims at overcoming a knowledge gap identified in the literature. The framework depicts trust-based interactions concentrating to sharing of vehicle capacities. The trust framework is conceived on a foundation of theoretical body of knowledge in the literature. It engages knowledge on collaborative networks, logistics and transportation, agent behavior as well as trust. This research contributes by identifying key agents together with their roles, characteristics, tasks, information exchange as well as perceptions; all of which linked to agent trust. The framework is reusable in many ways, including formal conception of models aspiring to empirically investigate trust amongst agents sharing logistics resources. It also provides more understanding to practitioners, especially on issues relating to compromising differences resulting from agent's perspectives.