

Supply chain management in a competitive and cooperative environment

Individual firms in a supply chain can earn higher profits by cooperating instead of working on their own. This cooperation can take several forms. First, firms can pool their information and centralize their decision making, acting like one large firm. Second, firms can sign a contract and still make their own decisions. The contract should induce the firms to make decisions that are optimal for the whole chain. To bring about both types of cooperation asks for the right financial incentives: if a firm can earn more on its own than it receives from cooperation, then it is certainly not willing to cooperate. Therefore, financial incentives or distributions of the gain in profits play an important role.

The existing literature on supply chain management recognizes that profits can be increased by cooperation but thus far it hardly paid any attention to the questions how this cooperation should be achieved and how the higher profit should be distributed among the firms. The current project aims at answering these questions by investigating how to reach cooperation in a supply chain and how to maintain it by providing the right incentives. For this, different types of supply chains will be examined, leading to possibly different answers. This will be done by combining supply chain management and game theory.