

MODELING FAIRNESS OF PROFIT DISTRIBUTION IN SUPPLY CHAINS

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ABSTRACT

Although major concern in supply chain operations lies in the profit maximization, there are growing interests on fair distribution of profits among participants, which enable sustainable growth of supply chains. In this talk, we model a supply chain where members are participating in transactions between other selected members. We show the focal company inherently makes more profit than others, yielding unbalanced profit distribution. We address fairness measures under this setting and propose methods to drive improved fairness in profit distribution among members. We discuss extensions of our model to large scale supply chain consisting of general number of participants.

Keywords: supply chain management, profit distribution, fairness measures, improved fairness

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