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Horizontal Suppliers Coordination with Uncertain Suppliers Deliveries

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Abstract—In this study, two (or more) supply chains where the suppliers share information on their production, inventory and delivery status are considered. Due to uncertain supplier deliveries and lead time, horizontal supplier coordination is implemented to reduce lead time and deliveries uncertainty, and thus the safety inventory due to risk pooling effect. As a result, the total system profit increases. A mathematical model, illustrating a case study and sensitivity analysis are developed to show the significant of horizontal coordination.

Keywords—Horizontal suppliers, Coordination, Uncertain deliveries

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