

**Kelepouris, Thomas; Miliotis, Panayiotis; Pramataris, Katerina**

**The impact of replenishment parameters and information sharing on the bullwhip effect: a computational study.** (English) [Zbl 1205.90154](#)

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Summary: Demand variability amplification across the supply chain, known as the bullwhip effect, results in serious inefficiencies across the chain. Managers are expected to minimize this phenomenon in their chain in order to reduce costs and increase customer satisfaction by making critical decisions on replenishment policy. We study how specific replenishment parameters affect order variability amplification, product fill rates and inventory levels across the chain. Furthermore, we study how demand information sharing can help towards reducing order oscillations and inventory levels in upper nodes of a supply chain. A two-stage supply chain consisting of a warehouse and stores that face customer demand is modeled. Real demand data are used as the underlying customer demand during the experiments.

**MSC:**

**90B50** Management decision making, including multiple objectives

**90B05** Inventory, storage, reservoirs

Cited in **9** Documents

**Keywords:**

bullwhip effect; replenishment; information sharing; computational

**Full Text:** [DOI](#)

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