Temporary Price Discount to a Retailer with a Private Demand Forecast

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Resumo/Abstract:
This paper analyzes a setting in which a manufacturer and a retailer face uncertain demand, but the retailer has an information advantage in the form of a private demand forecast. We first analyze the case when the demand forecast is common knowledge, which yields the manufacturer's first-best equilibrium profits. Next, we analyze the case where the forecast is privately observed by the retailer and establish that the manufacturer incurs a hidden information cost as his equilibrium profits drop below the first-best case. Finally, we analyze the case where the manufacturer uses a temporary price discount to incentivize the retailer to purchase some quantity before she observes the forecast signal; after observing the signal, she can order more at the full (un-discounted) price. We show that by offering the retailer a temporary price discount, the manufacturer can achieve first-best profits without actually observing the demand forecast. In other words, by offering the retailer a temporary price discount, the manufacturer can achieve the same expected profits as if he observes the retailer's private information, without this information being directly revealed.