

Expected profits under Stackelberg competition with private information

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Abstract

This study derives the conditions for the first-mover advantage in one-leader and multiple-follower Stackelberg games with private information on stochastic demand. We show that the ex-ante expected output quantities of the leader (followers) are monotonically decreasing (increasing) in the precision of the leader's private information. By contrast, both the leader and followers' ex-ante expected profits are non-monotonic. Due to this non-monotonicity, the conditions for the first mover profit advantage can be divided into three cases depending on number of followers.

Keywords: Stackelberg games; private information; first-mover advantage.

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