Stackelberg Competition with a Large Number of Followers: Arrow Effect Revisited

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Abstract

How profitable is the innovation in a competitive market? We address this question by investing the asymmetric oligopoly model in which 1 firm (innovator) has the cost advantage and inducing the the asymmetric limit outcomes when the number of the other firms goes to infinity. If the innovator is Stackelberg leader, three cases arise. One is the case the leader becomes the monopolist. Also there exists the opposite case where the leader is not able to stick out of competitive market. In the intermediate case, the leader occupies an entire market but does not have the power to make the price. This result supports classic Arrow's analysis of invention as one polar case. However, if we go away from this polar case, the adverse effect of "Arrow effect" can occur. Furthermore, if we consider Cournot competition, partial monopoly à la Forchheimer is supported in our asymmetric limit result.

References

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