Price Competition between Price Setting Middlemen in the Laboratory Setting

Kazuhito Ogawa[*], Kouhei Iyori[†] and Sobei H. Oda[‡]

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abstract

This paper describes how subjects act as a middleman in experimental price competition markets. In this paper, a middleman sets a bid price and buys a commodity from a supplier, then sells it to a buyer at a higher price. In contrast, a lot of theoretical or experimental studies on the price competition, which we call the ordinary price competition, assume that firms set only ask price. Our experiments have treatment-1 (subjects do not know the supply or demand functions either) and treatment-2 (subjects know the supply and demand functions). Subjects play treatment-1 first, and then play treatment-2. In both treatments, firms compete with each other by setting ask and bid price to make profit.

The results we obtain are as follows: In treatment-1, the ask and bid price which forty percent of the pairs chose converged to the Walrasian price. While in the ordinary price competition experiments, the average price does not converge to the Walrasian price when the number of competitors is two(Dufwemberg and Gneezy,2000). This result shows that even if the number of competitor is a few, the two-price competition maximizes the market welfare by changing the trade institution.

In treatment-2, the ask and bid price which twenty five percent of pairs chose converged to the Walrasian price. Most of other pairs competed or cooperated the price set between the Walrasian and the monopolistic price set. This result suggests the tacit collusion may happen if both firms use the supply-demand information to make profit each other.

The competition process is keener in treatment-1 than in treatment-2: that is, the welfare loss that stems from the number of inventory during the experiment is more frequent in treatment-1 than in treatment-2. It suggests that in the short term it is desirable for the society to know the supply-demand information, while in the long term it is desirable for the society not to know the information.

[*] Graduate School of Economics, Kyoto University and JSPS Research Fellow Address: Sakyo-ku, Kyoto 606-8501, Japan E-mail: O-kazu@m3.people.or.jp Tel: +81-06-6581-0432

[†] JSPS Post Doctral Fellow and Visiting Reseach Fellow of Kyoto Sangyo University

[‡] Kyoto Sangyo University