

CORRIGENDUM

**Good and Bad Competition in Spatial Markets for Search Goods:
The Case of Linear Utility Functions**

by

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In SCHULZ, STAHL [1989], we claim that there exists a symmetric solution of the monopolist's optimization problem. In the specification given there, however, this is incorrect (SCHULZ [1990]). It turns out that the second order conditions are not satisfied. More precisely, we use:

$$p^e = \frac{1}{s} \sum_{i=1}^s p_i$$

We shall show here that employing the assumption

$$p^e = \frac{1}{2\pi} \sum_{i=1}^s p_i \beta_i$$

which conforms with rational expectations removes this problem, *i.e.* theorem 1M becomes valid while the remaining parts of our analysis are not affected. The last statement is true because in the symmetric solution $\beta_i = 2\pi/s$ and $\sum p_i \partial \beta_i / \partial p_k = 0$. Therefore the arguments and formulas concerning the comparative statics of p^M , p^C , Π^M , Π^C are still valid. It remains to show that

$$\max_{p, \alpha} \Pi(p, \alpha)$$

with $\Pi(p, \alpha) = \left(w(s) - \frac{1}{2\pi} \sum_{i=1}^s p_i \beta_i \right) \sum_{i=1}^s (p_i - k) \beta_i$ admits a symmetric solution.

To this end observe that $\Pi(p, \alpha)$ is positive iff

$$w(s) > \frac{1}{2\pi} \sum_{i=1}^s p_i \beta_i > k$$

Hence, we can equivalently solve

$$\max_{p, \alpha} \Pi(p, \alpha) \text{ s. t. } w(s) \geq \frac{1}{2\pi} \sum_{i=1}^s p_i \beta_i \geq k$$

Its solution must be contained in the interior of the admissible set. Note that

$$\Pi(p, \alpha) = 2\pi(w(s) - p^e)(p^e - k)$$

p^e is strictly concave in p^e with $p^e = (w(s) + k)/2$ being the unique maximum. Hence, for all p, α

$$\Pi(p, \alpha) \leq \pi(w(s) - k)^2/2$$

Furthermore, this bound is attained for $p_i = p^e$ and $\alpha_i - \alpha_{i-1} = 2\pi/s$, which is contained in the admissible set. Therefore our claim is shown to be true.

● References

- SCHULZ, N. and STAHL, K. (1989). – “Good and Bad Competition in Spatial Markets for Search Goods: The Case of Linear Utility Functions”, *Annales d'Economie et de Statistique*, N° 15/16.
- SCHULZ, N. (1990). – “Special Offers and Clustering under Symmetric Monopoly”, *Beiträge zur Angewandten Wirtschaftsforschung*, Mannheim, Disc. Paper N° 435-90.