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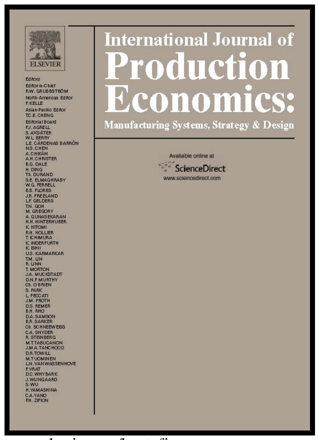

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Competition between organic and conventional products with different utilities and shelf lives

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Abstract

We consider pricing decisions of agri-food retailers offering organic versions and non-organic conventional versions of a single agricultural product, where the two product versions differ from each other in terms of their shelf lives and their utility to customers. The latter is captured in a random "valuation" variable distributed among customers. Due to the expense of traveling to, and transporting products back from, a given retail location, the consumer incurs a traveling cost that is directly influenced by the product's shelf life. We first address a single retailer's pricing decisions, which take into account product utility and product shelf lives (and, accordingly, traveling costs). We further examine whether the retailer might benefit from investing in mitigating customers' traveling costs, e.g., by offering delivery services. We show that in some cases, no investment justifies itself in terms of increasing the retailer's profit. Next, we analyze the case of two competing retailers, each offering a specific product version. We consider different relationships between the two competitors: symmetrical distribution of power or asymmetrical distribution, with one player being the leader in each case. For each game we identify conditions under which the market is non-degenerate, that is, the demand for both products is positive. Notably, under some conditions it is not profitable for a centralized retailer to offer both products, yet two