Unpacked Selling: A Zero-waste Alternative to Single-Use Packaging but is It Profitable?

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Abstract

More than 28% of municipal waste comes from packaging (EPA, 2020), generating one of the main sources of solid waste. Although recycling may be a remedy to a certain extent, the difficulties in and high costs of collection, separation, and recycling, challenge its feasibility (BAFU, 2019). Hence, to prevent the problem at the source, companies search for ways to reduce or eliminate their product packaging, e.g., through unpacked (bulk) selling. While unpacked selling already exists in local markets, large producers' adoption is still new. One recent and innovative implementation is Nestle's dispensers for cat food and coffee (Nestle, 2020). But, how would unpacked selling affect these large producers' traditional sales and market share, and what are the conditions under which unpacked selling would be profitable? In this study, we aim to answer these questions using a stylized model in a duopoly environment with low- and high-end producers. The producers choose whether to offer single-use package products and/or unpacked products and corresponding prices. Consumers make their purchasing decisions maximizing their utility. They factor in the utility from product and packaging separately in their valuations. Our results reveal when it is profitable for each producer to introduce unpacked products.

Keywords
Unpacked selling, Price competition, Consumer valuation of packaging

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Biographies

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