

The perils of ignoring the budget constraint in single-unit demand models

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Cite as:

Pachali Max, Kurz Peter, Otter Thomas (2019), The perils of ignoring the budget constraint in single-unit demand models. *Proceedings of the European Marketing Academy*, 48th, (9677)

Paper presented at the 48th Annual EMAC Conference, Hamburg, May 24-27, 2019.



The perils of ignoring the budget constraint in single-unit demand models

Abstract

For practical reasons, the majority of empirical and experimental studies of consumer demand focus on single product categories. Two-stage budgeting provides some theoretical justification for doing so. However, the budget allocated to a utility-separable category in the first stage of the two-stage budgeting process is commonly ignored in studies of consumer demand, and specifically when studying single unit choice among perfect substitutes using a quasi-linear indirect utility function. This is because the category budget appears as an intercept in the quasi-linear indirect utility function, and therefore does not affect a consumer's decision as long as all prices the consumer ever sees fall within his category budget. Whether this is true or not, is an empirical question. We argue that this assumption may be commonly violated, and document the bias in inferred quantities of economic interest that results from ignoring the budget constraint in these cases.

Keywords: *discrete choice; aggregate demand forecasts; Bayesian inference*

Track: Methods, Modelling & Marketing Analytics