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Revisiting 'Consumer Uncertainty and Purchase Decision Reversals: Theory and Evidence'

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Abstract. Prior research found that providing uncertainty-reducing information can increase product returns or service cancellations when judgments are reference-dependent and losses loom larger than gains. In providing the analytical proof, the authors made an implicit assumption that is made explicit in this rejoinder.

Key words: Product Returns, Consumer Uncertainty, Service Cancellations

In analytically proving that uncertainty reducing information can increase consumer decision reversals (e.g., product returns or service cancellations), Shulman et al. (2015) implicitly assume that the utility component ψ_i follows a continuous distribution. However, as noted by He and Le (2024), the manuscript omitted the word "continuous."

In this article, we verify that E^i_{LoInfo}[purchase] is strictly positive when $\mu_i + max_{\psi_i,\epsilon_i}\{\psi_i + \epsilon_i\} - P > 0$ if ψ_i and ϵ_i are continuously distributed variables.

As concurred He and Le (2024), E^i_{LoInfo}[purchase] is strictly positive if both $Pr(\mu_i + \psi_i + \epsilon_i - P > 0) > 0$ and $E[\mu_i + \psi_i + \epsilon_i - P \mid \mu_i + \psi_i + \epsilon_i - P > 0] > 0$. We prove that this is true.

Let $\hat{\psi}$ and $\hat{\epsilon}$ be values of ψ_i and ϵ_i such that $\mu_i + \hat{\psi} + \hat{\epsilon} - P > 0$. Such values exist by the condition that $\mu_i + max_{\psi_i,\epsilon_i}\{\psi_i + \epsilon_i\} - P > 0$. By continuous distribution of ψ_i and ϵ_i, there exists

$x > 0$ and $y > 0$ such that $\mu_i + \psi_i + \epsilon_i - P > 0$ at $\psi_i = \hat{\psi} + x$ and $\epsilon_i = \hat{\epsilon} + y$. In other words, for any point within the non-empty set of $\hat{\psi}$ and $\hat{\epsilon}$ such that $\mu_i + \hat{\psi} + \hat{\epsilon} - P > 0$, there is an open ball of positive measure contained within the set. Therefore, the set is open, non-empty, and has positive measure. In other words, $Pr(\mu_i + \psi_i + \epsilon_i - P > 0)$ and $E[\mu_i + \psi_i + \epsilon_i - P \mid \mu_i + \psi_i + \epsilon_i - P > 0]$ are strictly positive. Q.E.D.

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References

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