

# Incentive Designs with Uncertainty: Keeping the Hope Alive

**Siria Xiyueyao Luo**

University of Groningen

**Luxi Shen**

Chinese University of Hong Kong

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## Short Abstract

Uncertainty is increasingly leveraged in marketing programs to enhance consumer engagement, but its optimal use in effort-payoff conversion remains unclear. This research investigates two approaches: uncertainty introduced between effort and score (1st-degree uncertainty) and uncertainty introduced between score and payoff (2nd-degree uncertainty). Across six **real-effort, real-pay** experiments (total  $N = 1,472$ ), we demonstrate that 2nd-degree uncertainty consistently drives greater effort investment. Participants exerted more sustained effort in a tedious task when the payoff conversion rate remained uncertain until the end, compared to when uncertainty was resolved earlier in the process. We ruled out alternative explanations such as medium maximization and magical thinking. Our findings suggest that the motivational power of 2nd-degree uncertainty may stem from the hope of achieving an optimal outcome, offering actionable insights for designing incentives that maximize consumer engagement.

*Keywords: Uncertainty, Hope, Incentive design*

*Track: Consumer behavior*