

# Gamification and financial well-being: Increasing saving intentions through leaderboards

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Zoom meeting (Dec 10<sup>th</sup> 8:00am – 9:15am EST): <https://zoom.us/j/91408347935?pwd=Y3dBWUtsSkNOVm1meVZ3UG16WXNwZz09>

## Abstract

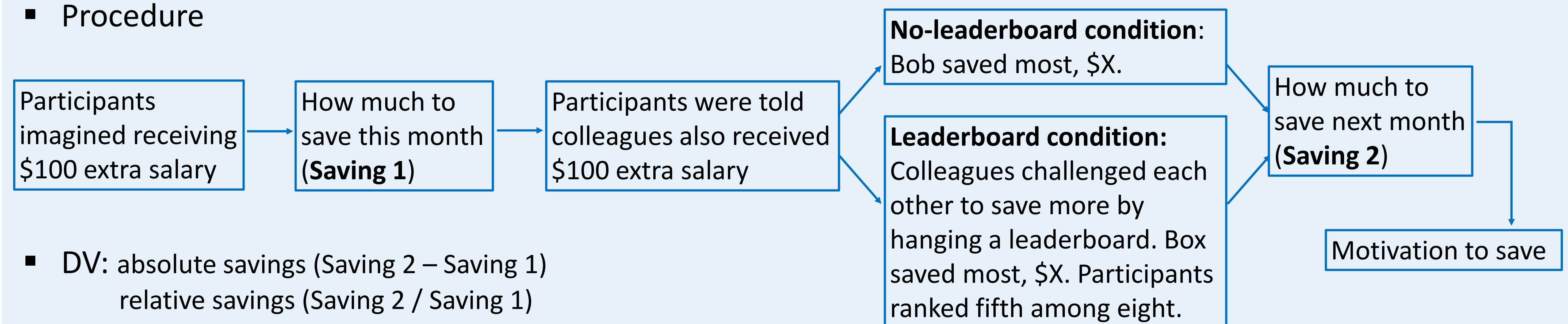
We explore a new strategy to motivate people to save more money—gamification, more specifically, competitive leaderboard. The results consistently suggest that people’s saving intentions increase more after seeing a leaderboard showing participants’ ranking in the saved amount in a hypothetical scenario than not. Moreover, this effect is more pronounced when people compare with a high standard (No.1 on the leaderboard saved 60% more than participants) than with a low standard (No.1 saved 10% more than participants). However, the effect does not vary with people’s social comparison orientation.

## Introduction

- Saving money is important but challenging (Krijnen et al., 2019)
- Prior saving strategies primarily focus on using pre-set rules or changing choice environment to restrict the use of money (Garbinsky et al., 2014; Thaler & Benartzi, 2004)
- Instead, we turn saving money into a fun experience and **explore a new strategy encouraging savings**—gamification, more specifically, **competitive leaderboards**
- Because leaderboards incur competition and social comparison that motivates people to perform better, we further **examine whether the height of the upward comparison standards and individuals’ social comparison orientation (SCO) moderate leaderboards’ effectiveness in enhancing saving intentions**

## Method & Results

### Procedure



- DV: absolute savings (Saving 2 – Saving 1)  
relative savings (Saving 2 / Saving 1)

	Study 1 (N = 241)	Study 2 (N = 377)
Moderator	<b>Upward comparison standards:</b> Bob’s saved amount, \$X, was either 60% (high standard) or 10% (low standard) more than participants’ Saving 1.	<b>Participants’ SCO:</b> Iowa-Netherlands Comparison Orientation Measure (INCOM; Gibbons & Buunk, 1999).
Results	<ul style="list-style-type: none"> <li>• No-leaderboard &lt; Leaderboard: <math>F(1, 237) = 14.96, p &lt; .001, \eta_p^2 = .06</math></li> <li>• Interaction: <math>F(1, 237) = 6.49, p = .01, \eta_p^2 = .03</math></li> </ul> <p>The effect of leaderboards on saving intentions was mediated by the motivation to save, <math>b = 3.14, SE = 1.19, 95\% CI = [0.99, 5.76]</math></p> <p>Results were similar for relative savings</p>	<ul style="list-style-type: none"> <li>• No-leaderboard &lt; Leaderboard: <math>b = 8.35, t = 2.87, p = .004</math></li> <li>• Interaction: <math>b = 0.99, t = 0.25, p = .80</math></li> </ul> <p>Nonsignificant mediation effect of the motivation to save, <math>b = -1.64, SE = 1.15, 95\% CI = [-3.93, 0.64]</math></p>

## Discussion

- This research provides a simple-to-implement strategy to spur saving intentions
- This research empirically identifies the effectiveness of gamification in the financial area for the first time

## References

- Garbinsky, E. N., Klesse, A.-K., & Aaker, J. (2014). Money in the bank: Feeling powerful increases saving. *Journal of Consumer Research*, 41(3), 610-623.
- Gibbons, F. X., & Buunk, B. P. (1999). Individual differences in social comparison: development of a scale of social comparison orientation. *Journal of Personality and Social Psychology*, 76(1), 129.
- Krijnen, J. M. T., Zeelenberg, M., Breugelmans, S. M., & Van der Schors, A. (2019). Intention and action in retirement preparation. *Behavioural Public Policy*, 1-22.
- Thaler, R. H., & Benartzi, S. (2004). Save more tomorrow™: Using behavioral economics to increase employee saving. *Journal of Political Economy*, 112(S1), S164-S187.