Johns Hopkins Carey Business School | Human Capital Development Lab

Delicate balance: Non-monetary rewards can sustain high online engagement, with the right conditions

RESEARCH BRIEF

Non-monetary reward systems in online communities boost voluntary contributions but also increase the likelihood of counterproductive behaviors, particularly as users get close to earning key rewards.

Why it matters

Leaders designing the future of work, digital platforms, and internal knowledge systems frequently use non-monetary rewards (badges, leader boards, peer recognition), triggering both helpful and harmful behaviors:

- **Reward systems drive measurable upticks** in both productive and counterproductive actions near important milestones.
- Counterproductive acts (e.g., gaming, unhealthy competition) spike under high performance pressure.
- **Sanctions** for bad behavior (temporary suspensions) **can lead to long-term drops** in contributions and overall community vitality.

How we know

The study analyzed eight-year data of over 1.7 million member-week observations from Stack Overflow to track reward status, contributions, and suspensions for counterproductive behaviors (voting manipulation and gaming the system). Members nearing reward thresholds were compared to matched non-suspended peers; differences before and after sanctions were examined using logistic regression and fixed-effects models with robust controls.

What researchers found

- Site members near a key reward threshold had **26%** higher odds of being suspended for counterproductive behavior.
- The week before suspension, they increased their productive contributions by **over 50%** comparing with high-achieving peers.
- Productive and counterproductive behaviors often happened at the same time—members did not simply become unproductive when rule-bending increased.
- After being formally suspended, members' future contribution rates dropped by **11%** on average, suggesting that punitive sanctions may reduce future motivation.

What this means

- **For digital platform leaders:** Non-monetary rewards can drive both desired and undesired behavior, particularly when stakes are high.
- **For HR and knowledge managers:** Reward pressure may inadvertently invite disruptive behavior, but it does not always crowd out positive contributions.
- **For all organizations:** Harsh sanctions can hurt long-term engagement; alternative interventions can sustain better participation.

Now what?

- **Audit** your organization's **non-monetary reward systems** for "milestone pressure points" and introduce positive nudges (recognition) near thresholds.
- Use **transparent, fair, and proportionate responses** to rule-bending—pair mild corrective action with coaching or community reinforcement, not suspensions.
- **Track** both productive and counterproductive behaviors before and after sanctions to assess unintended side effects.
- **Pilot** design tweaks that refocus contributors on community values near key milestones (collaboration over competition).

LINK TO THE STUDY

Reference: Chambers, C.R. (2024). Nonmonetary reward systems, counterproductive behavior, and responses to sanctions in open collaboration environments. Organization Science, 35(3), 928-947.