Boosting Innovation Adoption Through Gamified Information Release

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Evidence from three experiments shows that construing the release of information about product innovations in part as games that consumers must complete successfully increases innovation adoption relative to the unrestricted release of the same information. This effect is sequentially mediated by the state of playfulness via an increased curiosity.

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EXTENDED ABSTRACT

While innovations are a cornerstone for most companies’ success (Henard and Dacin 2010), prior research revealed significant failure rates (Min, Kalwani, and Robinson 2006). One reason is that innovations can be tedious, especially when they are not radical (Rindova and Petkova 2007), and consumers might lack the motivation to process information related to such innovations (Wood and Lynch 2002). As a result companies are not able to effectively communicate the advantages of these innovations, and consumers are often not willing to adopt them. On the quest for increasing the adoption rate of innovations, practitioners have started to use gamification. Yet, evidence is anecdotal so far and conclusive consumer research on the psychological processes and behavioral consequences of gamification for communicating innovations is missing.

In this article, we seek to close this gap by investigating whether the gamified release of information about an innovation enhances consumers’ tendency to adopt a product and what mental process underlies this effect. The central hypothesis of this research is that gamification induces a playful state, which elicits curiosity and ultimately increases consumers’ tendency to adopt innovations. We offer empirical evidence from three experiments on the effect of gamification on adopting innovations and the underlying psychological mechanisms. In line with prior research, we define gamification as the integration of game elements in non-game settings (Deterding et al. 2011) which is in the presented context the release of information about innovations. The findings of three experiments demonstrate that construing the release of information about innovations in part as games that consumers must complete successfully increases consumers’ innovation adoption relative to the unrestricted release of the same information.

In Experiment 1A, 205 participants (M_Age = 37.91, SD_Age = 13.37, 62.9% females) were assigned either to a control or a gamification condition. In the control condition participants received information texts about five product features of an in-car multimedia system, which they were required to read. Participants assigned to the gamification condition received the same information about the innovation, but they could receive it in form of a quiz. The gamification condition indicated a higher purchase intention than the control condition. This effect is mediated by curiosity (β_total = .28, p < .05; β_direct = .13, p > .10; β_indirect = .15, 95% CI [.02; .30]).

Experiment 1B extends the findings of Experiment 1A by integrating a different game: a short video racing game had to be played successfully to receive more information. Moreover, we will examine whether the effect also increases the curiosity for radical innovations. We implemented a 2 (innovation: incremental vs. radical) x 2 (gamification: control vs. video game) between-subjects design. All participants (N = 266) received information about the same two product features of the in-car multimedia system. After reading the information, participants were assigned either to the gamification or control condition and could opt-out of more information. Participants who decided to receive more information received information about three more product features (radical vs. incremental) in the control group, or played a car racing game to receive the additional information (radical vs. incremental) in the gamification condition. Significant interaction effects revealed the type of innovation (radical vs. incremental) as moderator. A moderated mediation analysis indicated that curiosity partially mediates the effect of gamification.

The conditional direct effect of gamification on purchase intention is significant for incremental innovations (β_direct,incremental = .28, p < .05) and not for radical innovations (β_direct,radical = -.12, p > .10). The conditional indirect effect for incremental innovations is significant (β_indirect,incremental = .19, 95% CI [.03; .53]), but not for radical innovations (β_indirect,radical = -.07, 95% CI [-.21; .05]). The conditional effect of gamification on purchase intention is significant for incremental innovations (β_total,incremental = .47, p < .01), but not for radical innovations (β_total,radical = -.19, p > .10).

The aim of Experiment 2 was to provide evidence that playfulness is the underlying cause of the effects. The innovation and the experimental set-up mirrored the incremental innovation condition of Experiment 1B with exception of the playfulness measure which was added in this experiment. Results of a serial mediation analysis confirmed that the relationship between gamification and purchase intention is sequentially mediated by the participants’ induced playfulness and their curiosity (β_total = .61, p = .06; β_direct = .25, p < .10; β_indirect = .24, 95% CI [.06; .56]).

Experiment 3 corroborates and extends prior experiments in that gamification not only increases consumers’ purchase intentions by eliciting curiosity, it also shows that the psychological process increases real purchases (β_total = 1.32, p < .01; β_direct = 1.11, p < .05; β_indirect = .39, 95% CI [.05; 1.05]). Additionally, Experiment 3 demonstrates that the increased curiosity translates into more information acquisition, which increases the participants’ recall of product advantages (β_total = .19, p > .10; β_direct = .19, p > .10; β_indirect,curiosity = .08, 95% CI [.004; .273]).

Moreover, by giving the control group the same motoric task, we ruled out an alternative explanation, which is the difference in the motoric actions of the participants.

The article mainly contributes to recent work on how different types of presenting product information affect consumers’ innovation adoption decision. Designing the release of information in part as games that consumers must play successfully to obtain the information boosts subsequent innovation adoption relative to an unrestricted information release. Additionally, the findings of this research advance our understanding of consumers’ playfulness and curiosity in the adoption of innovations. We find that a gamified information release may elicit a sense of playfulness in consumers which induces curiosity and increases subsequent innovation adoption by activating an exploratory mindset. Moreover, we find that the radicalness of innovations can moderate these effects.

REFERENCES


