

Asymmetric Information and Entrepreneurial Disincentives in Crowdfunding Markets

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Abstract

Technology has enabled consumers and firms interact before new product launch in a way marketers had only dreamed of in pre-Internet age. According to Massolution (2015), about 16.2 billion US\$ was raised through more than 1000 crowdfunding platforms around the globe. This rapidly expanding industry not only provides entrepreneurs opportunities to raise funds for their creative ideas but also create dynamic incentives between sellers and consumer before product launch. However, the information asymmetry and the ex-ante uncertainty about demand responses could generate disincentives on the fundraiser side and lead to higher chances of frauds. Fundraiser frauds not only hurt consumer, but also affect crowdfunding platforms' long-term growth. Understanding the cause of these frauds and its dynamic impact on fundraisers and platforms is important for effective management of idea generation and realization.

Leveraging the proliferation of online information, our study address three key questions in this context. First, to what extent the fraud decision is induced by the demand-side responses during the crowdfunding stage? Secondly, how it varies across different types of entrepreneurs? Third, how should the platforms manage these crowdfunding projects while courting entrepreneurs and contributors? We assemble a unique dataset from different sources: campaign data in the indie game category from 2009 to 2017 from Kickstarter, and product launch information from major final-product markets. We document detailed adds-on attributes and seller experiences from text-data crawled from campaign webpage and collect ratings on fundraisers' managerial capital. The dataset allows us to explore the dynamics of consumer response to the new products prior to launch, then test the association between the pre-launch consumer responses and the entrepreneurs' final product launch decisions, and explore whether novice versus expert entrepreneurs respond to the pre-launch demand responses in different ways.

We specify a multi-stage structural model of pre-selling demand at crowdfunding stage and entrepreneur's product launch decision. Our pre-launch demand estimation considers a market for differentiated crowdfunding campaigns, where each campaign is associated with a new product. Within each campaign, there is a list of menu options with different adds-ons (e.g., soundtrack or artbook). In the first stage, the entrepreneur follows the crowdfunding platform's creator guide on reward tiers and posts a menu of pledge options before observing any demand response to the specific product it intends to launch. At the end of the first stage, the entrepreneur observes the realized pre-launch demand through pre-selling on the crowdfunding platform. In the second stage, the entrepreneur compares the expected post-launch profit against the net fund raised in the first period and make launch decision.

Our preliminary findings suggest the entrepreneurs are not ignorant to the pre-launch demand responses at the crowdfunding stage. Instead, they appear to have imperfect information about the consumers' match values with their products and tend to relate their final product launch decision to the pre-launch demand responses. Through counterfactual simulations, we show that more positive pre-launch demand responses can significantly reduce the amount of frauds. This indicates there exist great scope for platforms to design policies that can encourage entrepreneurs bring creative idea to final product launch and to reduce fraud.

We contribute to the literature in the followings ways. First, we relate to the literature on agent disincentive in crowdfunding market (e.g., Agrawal et al., 2014; Chemla and Tinn, 2017; Strausz, 2017). Our findings shed light on the drivers of entrepreneur disincentive in the reward-based crowdfunding market. We show a positive correlation between the observed pre-launch demand realizations and the possibility of fundraiser fraud. Second, we relate to the literature on moral hazard and selection on moral hazard (Cardon and Hendel, 2001; Einav et al., 2013). We empirically investigate the moral hazard issues in crowdfunding market. Finally, our findings highlight the potential of reward-based crowdfunding campaign to serve as a new form of test-market. We find evidences suggesting entrepreneurial are not ignorant to the pre-selling sales responses. Under proper regulation policy, platform may be able to guide entrepreneurs to bring more varieties and new creative ideas to the market.