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Abstract

Using a large survey with 47,188 backers of Kickstarter projects, I examined the factors that led to projects failing to deliver their promised rewards. Among funded projects, a failure to deliver seems relatively rare, accounting for around 9% of all projects, with a possible range of 5% to 14%. There are few indicators at the time of project funding as to which projects might ultimately fail to deliver rewards, though small projects (and to a lesser extent very large projects) are more likely to fail to deliver rewards, as are some project categories. The demographics of project creators (including gender, education level, and family status) did not significantly affect the chance of a project succeeding.

Keywords

crowdfunding, Kickstarter, failure

Disciplines

Management Sciences and Quantitative Methods

Delivery Rates on Kickstarter

December 2, 2015

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Abstract

Using a large survey with 47,188 backers of Kickstarter projects, I examined the factors that led to projects failing to deliver their promised rewards. Among funded projects, a failure to deliver seems relatively rare, accounting for around 9% of all projects, with a possible range of 5% to 14%. There are few indicators at the time of project funding as to which projects might ultimately fail to deliver rewards, though small projects (and to a lesser extent very large projects) are more likely to fail to deliver rewards, as are some project categories. The demographics of project creators (including gender, education level, and family status) did not significantly affect the chance of a project succeeding.

Disclosures and acknowledgements: Kickstarter collaborated on data gathering, but these results are independent and solely my own work. I was not paid by Kickstarter, and all analyses were conducted independently of Kickstarter. Kickstarter was offered the chance to comment on, but not change, this paper before it was made public. For the backer data, Kickstarter conducted the survey using questions jointly developed with me, but shared all relevant non-private data. For the survey of project creators, the survey was conducted by me alone, and responses were not shared with Kickstarter. All errors and omissions are mine. I would also like to acknowledge the help of Derya and Matt Lane, who assisted me with the research. Funding for the project was provided in part by the Kauffman Foundation.

Kickstarter, the largest reward-based crowdfunding site, has facilitated the raising of over \$2 billion from 9.5 million people, funding over 93,000 projects. Though many projects on Kickstarter have gone on to be artistic or financial successes for project creators, to date there has been no clear evidence about how often projects actually deliver on their promises to backers. What evidence we have suggests that creators are generally honest, if overconfident – many projects take longer to deliver than creators estimate¹ and overall fraud rates are low². However, while Kickstarter warns potential backers about the risk of non-delivery in supporting projects, the actual share of projects that fail – that is, either do not deliver a promised reward, or deliver a reward that is very far from expectations – has been unknown, and a subject of considerable speculation. This paper provides a first attempt to systematically understand delivery rates on Kickstarter.

Methods

In order to discover delivery rates, I conducted a survey with the help of Kickstarter. In total 456,751 backers were surveyed, representing 65,326 projects. All projects from 2009 through May, 2015 that raised over \$1,000 were included in the sample, as well as half the projects that raised less than \$1,000 but over \$250, and a quarter of projects raising less than \$250. Backers were selected randomly, without replacement, to maximize the number of backers per project. A mean of 7.2 backers were surveyed per project, with 7 backers surveyed in 89% of projects and 10 backers surveyed in 7.8% of projects.

A total of 47,188 backers (10.3%) responded. In total, there is at least one response for 30,323 projects, (46.4% of all projects), with 1.56 backer responses per project on average. The mean backer in the sample contributed \$76.43 to the project they backed.

Response rates were higher for projects that traditionally produce consumer products, such as games (83% of all projects), technology (72% of all projects), design (70% of all projects) and comics (72% of all projects). They were lower for categories focused more on traditionally artistic pursuits, such as those in theater (35% of all projects), dance (31%), music (36%) and film (37%). Larger projects and more recent projects also had higher response rates. Across all categories, however, response rates were acceptable, and are unlikely to bias the findings.

Measuring Failure Rates

One challenge in analyzing the results was to determine what a “failed” project might be. Backers might consider a project failed if it did not deliver on its promises, if it delivered something different than expected, or for any one of a number of reasons. For the purpose of

¹ Based on this survey, it appears that backers receive (or expect to receive) their rewards on time in the majority of cases. Backers agreed or strongly agreed with the statement that “the reward was delivered on time” for 65% of projects (i.e. the average answers from backers for a project ranged from 4-5 on a 5 point scale); they disagreed or strongly disagreed with the statement for 17% of projects (1-2 on the scale); and for the remainder neither agreed nor disagreed that delivery was on time (2.01-3.99 on the scale). This only includes cases where backers were expecting a reward of some kind.

² See Mollick (2014), *The Dynamics of Crowdfunding: An Exploratory Study*, *Journal of Business Venturing*, 29 (1)

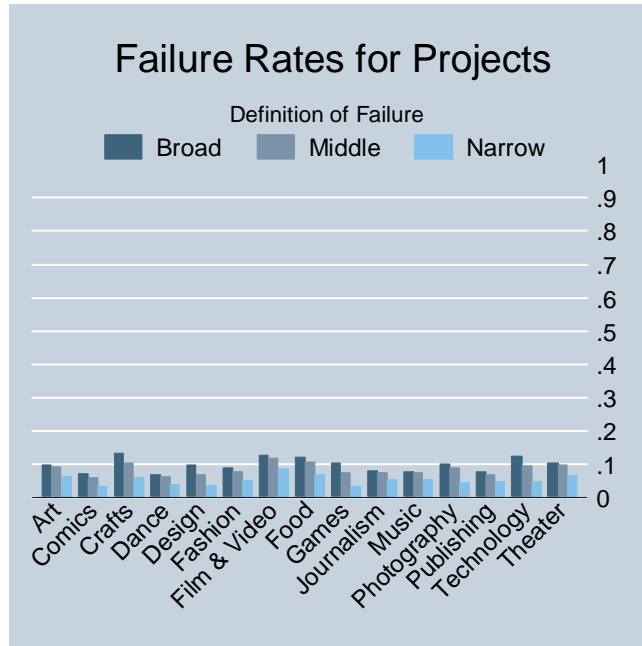
this study, I focus specifically on the rewards promised to project backers in return for backing projects (rewards on Kickstarter include a mix of physical, digital, and intangible rewards). The delivery of rewards seems to be the major way in which project backers evaluate the success of a project. At the same time, it is important to note that rewards are but one potential outcome of a project as there are many ways by which a project could “succeed” but still fail to deliver rewards – for example, an art exhibit may have been successfully staged, but not deliver a promised t-shirt or sticker to backers. Given this caveat, the degree to which backers believe they receive the expected outcome is a reasonable measure of one kind of success or failure.

There are many potential ways to classify projects as failed, based on our data. Respondents were asked to select from one of five reward status options, see Table 1 below.

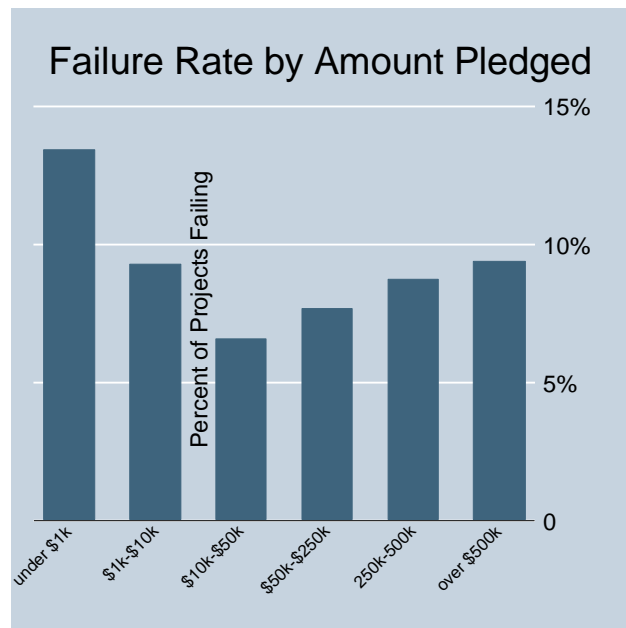
<i>Category</i>	Response	N	%
<i>Completed</i>	I received the reward	28,503	60.40
<i>Completed</i>	I was not expecting a reward	6,398	13.56
<i>Waiting</i>	I am still expecting to get the promised reward	8,879	18.82
<i>Failed</i>	I never expect to get the promised reward	2,456	5.20
<i>Failed</i>	I received the reward, but it was not what I was promised	951	2.02

For this paper, I consider failures to be those projects where backers answer that they “never expect to get the promised reward” (5.2% of all responses) or that they “received the reward but it was not what was promised” (2% of all responses).

This issue becomes more complicated when considering projects rather than individual backer opinions, because there might be multiple backers who answer the survey about a single project, and they might disagree about whether promised rewards were delivered. Thus, at the level of projects, rather than respondents, there is a need to decide how to classify projects as failures. The broadest definition is to say if anyone reported the project as a failure, then the project has failed. This would classify 9.95% of all projects as failures. However, given that individual complaints are not uncommon, this is likely too harsh a definition. If instead, we classify projects where at least half of backers considered the project as a failure (which I will refer to as the “middle definition” of failure), the rate drops to 8.6%, and if we take the strict definition that all backers should consider the project a failure, the failure rate is 5.6%. Figure 1 shows the failure rates by category under all three definitions.



Failure rates are highest for smaller projects, lowest for mid-size projects, and somewhat elevated for the largest projects. Figure 2 shows the failure rate by project size using the middle 50% failure standard. Overall, in terms of dollars, 8.2% of all dollars pledged to successfully funded projects goes to those that ultimately fail to deliver promised rewards.



We might also be concerned that a number of the projects that are currently waiting for delivery will ultimately fail. If we look at older projects from 2012 or earlier, it may provide a better sense of long-term success rates. For projects from 2012 or earlier, the failure rate is 13.9% for the broadest definition, 12.3% by the middle definition, and 8.6% by the strictest

definition. While these historical failure rates are higher, it is also likely that overall failure rates have decreased since 2012, as creators have climbed the learning curve of how to create successful projects, and backers have become more educated on which projects to support.

Combining all of these results, the overall failure rate for Kickstarter projects at the project level is around 9%, and likely in a range between 5% and 14%. A total of 7.2% of all backers reported that the project they were surveyed about failed. At the same time, it is important to note that even these numbers might overestimate project failure, as a project may have failed to deliver its reward, but still succeeded in accomplishing the goals of the creator.

Predicting Failure

Innovation involves risk, and so some failure rate in innovative projects is to be expected. At the same time, it is important to know if there are any observable factors that can serve as a warning for backers that a particular funded project is more likely to fail than another. The logistic regression results in Appendix 1 allow us to examine this issue in more detail.

As previously mentioned, the most funded and least funded projects are more likely to fail, though the smallest projects are more at risk than the largest ones. Controlling for the amount pledged and the year of the project creation, however, there are also some category-based risks. Film, technology, and food projects have greater chances of failure, while music projects are much less likely to fail. Again, this may be because of differences in ambition level across categories – it may be that film or technology products are aiming for more breakthrough products or are offering more complicated rewards (a completed movie or gadget, rather than a band t-shirt), and are thus at a higher risk of failure.

Other than category differences, there were few factors apparent to backers during the campaign that predicted failure, though projects that showed signs of creator effort, by having videos or by posting updates before the fundraising deadline, were less likely to fail. These had relatively small effects, however.

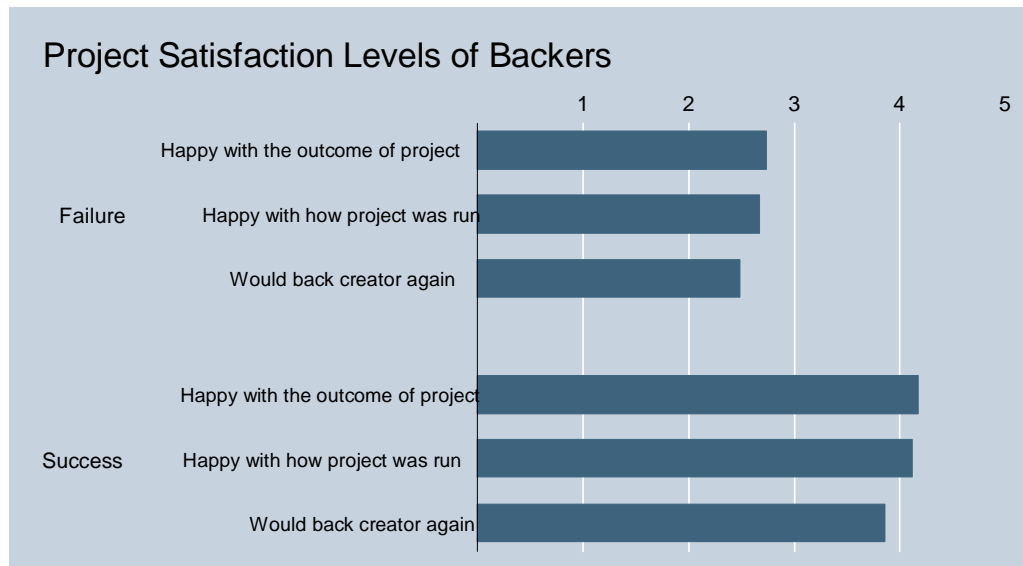
Given that one effect of crowdfunding is to increase the diversity of people who can get access to funds³, there was also a notable non-finding in the analysis of failures – the characteristics of the project creator were not significantly related to failure. There was no significant difference in failure rates between women and men, between highly educated and less educated creators, between teams and individual projects, between single or partnered creators, or between creators with children and those without.

Overall, for backers considering funding a project, there are currently few signs about which project will fail, assuming it has reached its goal. At the same time, additional research is being conducted on this issue using other data sources, and updated findings may be available.

³ See Ethan Mollick and Alicia Robb, *Democratizing Innovation and Capital Access: The Role of Crowdfunding*, forthcoming in the *California Management Review*

Backer impressions of failed projects

Failure seems to generally leave backers in the dark, without a refund or detailed explanation from creators. Indeed, backers seem to only be satisfied with failed projects in 15-20% of cases. For backers that report that a project has failed, around 13% report receiving a refund or other compensation, and around 17% agree or strongly agree that they understood why the project failed. Only 19% of backers of failed projects would back another by same creator. Importantly, this does not seem to discourage backers from Kickstarter, as 73% of backers of failed projects agree or strongly agree that they would back another Kickstarter project.



Conclusions

In general, for funded projects, a failure to deliver seems relatively rare, accounting for around 9% of all projects, with a possible range of 5% to 14%. Among funded projects, there seems to be little evidence in advance about which projects are likely to fail (beside project size and category). The fact that failures seem to be distributed in non-predictable ways should offer some comfort about the underlying ability of backers to weed out projects that might offer obvious signs of trouble. Project backers should expect a failure rate of around 1-in-10 projects, and to receive a refund 13% of the time. Since failure can happen to anyone, creators need to consider, and plan for, the ways in which they will work with backers in the event a project fails, keeping lines of communication open and explaining how the money was spent. Ultimately, there does not seem to be a systematic problem associated with failure (or fraud) on Kickstarter, and the vast majority of projects do seem to deliver. At the same time, it is important to realize that these results apply only to Kickstarter, and other crowdfunding methods (such as equity crowdfunding) and platforms that have different policies or approaches may have higher failure rates.

Appendix 1: Factors predicting campaign's failure to deliver (Middle failure case)

VARIABLES	(1) Logit coeff	(2) Odds ratio
Log(Pledged)	-1.511*** (0.257)	0.221*** (0.0566)
Log(Pledged)^2	0.161*** (0.0330)	1.174*** (0.0388)
category: Comics	-0.272* (0.139)	0.762* (0.106)
category: Crafts	0.313* (0.178)	1.368* (0.244)
category: Dance	-0.424* (0.224)	0.655* (0.147)
category: Design	0.0645 (0.111)	1.067 (0.118)
category: Fashion	0.0770 (0.136)	1.080 (0.147)
category: Film & Video	0.375*** (0.0851)	1.455*** (0.124)
category: Food	0.441*** (0.108)	1.555*** (0.168)
category: Games	0.166 (0.108)	1.181 (0.127)
category: Journalism	-0.0683 (0.281)	0.934 (0.262)
category: Music	-0.220** (0.0883)	0.802** (0.0708)
category: Photography	0.00396 (0.150)	1.004 (0.150)
category: Publishing	-0.179* (0.106)	0.836* (0.0882)
category: Technology	0.466*** (0.117)	1.594*** (0.186)
category: Theater	0.0277 (0.120)	1.028 (0.123)
Provided updates during campaign	-0.0146*** (0.00445)	0.985*** (0.00439)
Had video	-0.191*** (0.0633)	0.827*** (0.0523)
Creator commented during campaign	0.000324 (0.000506)	1.000 (0.000506)
Days project was live	0.00296* (0.00176)	1.003* (0.00176)
Constant	0.860 (0.573)	2.362 (1.353)
Observations	30,323	30,323
df_m	26	26
chi2	665.7	665.7
Pseudo r ²	0.0374	0.0374

Notes: This table shows the results of a logistic regression predicting the chance of non-delivery of a promised rewards at the project level, using the middle failure case. Model (1) shows the coefficients, Model (2) is the same model, but shows odds ratios for ease of interpretation. Category results are relative to the baseline of Art projects, which are omitted. All models control for year, and standard errors are in parentheses. *, ** and *** refer to significance at the 10%, 5% and 1% respectively