
Kickstarter Campaigns Data Analytic Report

Timothy Yu - February 20, 2022

Introduction

Kickstarter is an online crowdfunding platform where people can raise money for their projects. This report aims to make data-driven, action-base recommendations for board game companies to success in Kickstarter's campaign. Given \$15,000 USD as the minimum launch the project, the results of the analysis produce insights to the following aspects: realistic campaign goal, number of backers to support the goal, number of expected backers based on the trends in the Tabletop Games category.

Data

The dataset includes 15000 campaigns from 23 countries in about 9 years from May 2009 to March 2018. Successful and failed campaigns contribute to 87% of all the campaigns in the dataset.

Data Cleaning

1. There is no missing values in the dataset
2. The values of our key variables are reasonable

	Goal (\$)	Pledged (\$)	Backers
MAX	100,000,000.00	5,408,916.95	105,857
MIN	0.78	0.00	0

3. Filter to only include data from 2010-01-01 to 2017-12-31 as full-year data to have more consistency for time-series analysis
4. Filter to only include data outcomes equal to 'successful' and 'failed' as they are well-defined and convenient to study the distribution of key variables that contributes to the success of the campaign

Data Pre-processing

The cleaned dataset has 13109 campaigns remaining which is approximately 87% of the original data size. A few new data columns were introduced for further data analysis:

1. duration_days: it is the campaign duration in days (deadline minus launched date)
2. duration_months: campaign duration in months group by (1-30,31-60,61-90,>90 days)
3. goal_log, pledged_log, backers_log: logarithm of key variables

Results

Top/Bottom (sub)categories by Backers

Tabletop Games is the highest subcategory by backers. It has a total of 240,466 backers. This suggests board games are the most popular in the Kickstarter community.

Order	Top Categories	Backers	Bottom Categories	Backers	Top Sub-categories	Backers	Bottom Sub-categories	Backers
1	Games	399,183	Dance	5967	Tabletop Games	240,446	Glass	2
2	Technology	322,566	Journalism	6036	Product Design	214,623	Audio	9
3	Design	254,221	Crafts	9964	Video Games	126,827	Photo	11

Top/Bottom (sub)categories by Pledged

Order	Top Categories	Pledged(\$)	Bottom Categories	Pledged(\$)	Top Sub-categories	Pledged(\$)	Bottom Sub-categories	Pledged (\$)
1	Games	27.0M	Journalism	0.44M	Product Design	20.0M	Audio	131.00
2	Technology	26.7M	Dance	0.49M	Tabletop Games	18.5M	Glass	150.00
3	Design	23.0M	Crafts	0.54M	Video Games	7.5M	Crochet	210.99

Most Successful Board Game Company

Gloomhaven (second printing) is the most successful board game campaign in our Kickstarter dataset. This board game is designed by Isaac Chilres and published by Cephalofair Games. The company set a campaign goal at \$100,000.00 and raised \$3,999,795.77 (~400%) with 40,642 backers.

Top Countries with the Most Successful Campaigns

United States has the highest pledged and backers among 23 countries. This suggests companies are most likely to have successful campaigns if they launch their campaign in US.

Order	Countries	Total Amount Pledged (\$)	No. Campaigns Backed
1	United States (US)	110,100,422.58	9,172
2	Great Britain (GB)	9,153,309.3	1,028
3	Canada (CA)	2,109,163.93	411

Campaign Goals by Outcome

Figure 1 illustrates that the campaign goals for failed campaigns are higher compared to successful campaigns. However, the goals for dollars raised are not significantly different between the successful and failed campaigns. The median campaign goal for failed campaigns is within the middle 50% of the successful campaign's goals distribution. This suggests a trend of higher campaign goals are likely to lead to failure. There is only one successful campaigns with goals higher than \$1 millions.

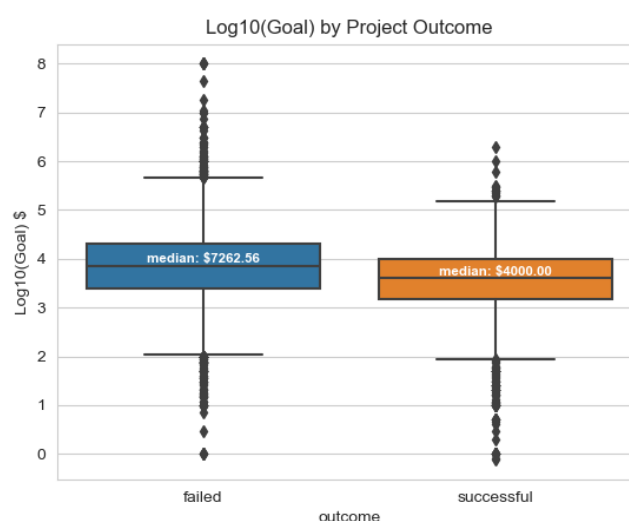


Figure1: Boxplot of campaign goals distribution for successful and failed campaigns

Correlation between Backers and Goals for Successful Campaigns

Figure 2 illustrates a significant correlation between backers and goals for successful campaigns. We used simple regression model and estimated the required number of backers for a successful campaign with goal set at \$15,000 is about 197.

Realistic Expectation of Backers for Tabletop Games

Figure 3 illustrates campaigns in Tabletop Games category have highest frequency at 171 backers. This suggests the board game company might need to put more effort in attracting backers to reach the required 200 backers.

Correlation between amount Pledged and Campaign Durations

In Figure 4, the median amount pledged peaks at 2-3 months campaign duration and shows a trend of decrease for campaigns with duration more than 3 months. In addition, the variation of pledged money reduced as campaign duration increases. This suggests there is a higher chance to raise more than \$1 million USD for 0-2 months campaign duration, probably due to the instant hype created in the community. Most of the campaigns tend to raise more money in 2-3 months as they gain more backers.

Time-Series Analysis

Figure 5 illustrates the amount pledged for campaigns in Tabletop Games category is relatively stable from 2011 to 2017. Overall, this shows the Tabletop Games category will maintain a strong environment for board game campaigns to grow and succeed.

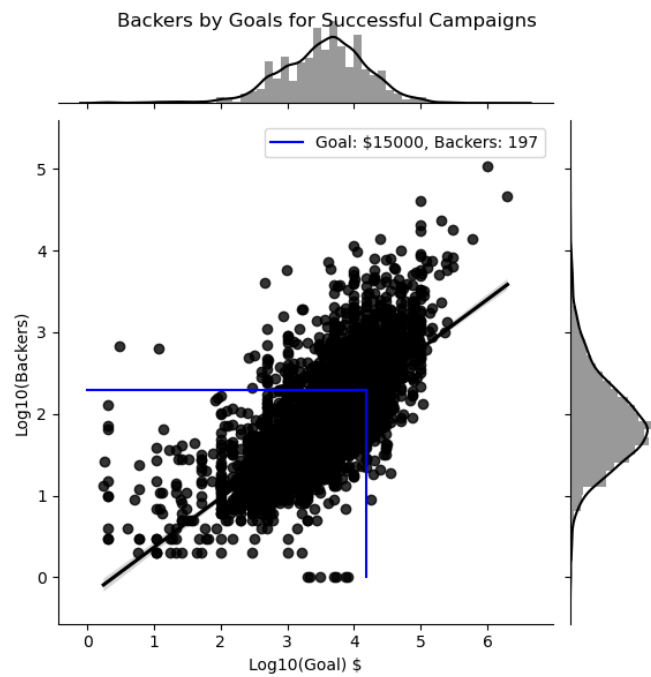


Figure 2: Joint scatter plot for logarithm backers and goals with linear regression estimation.

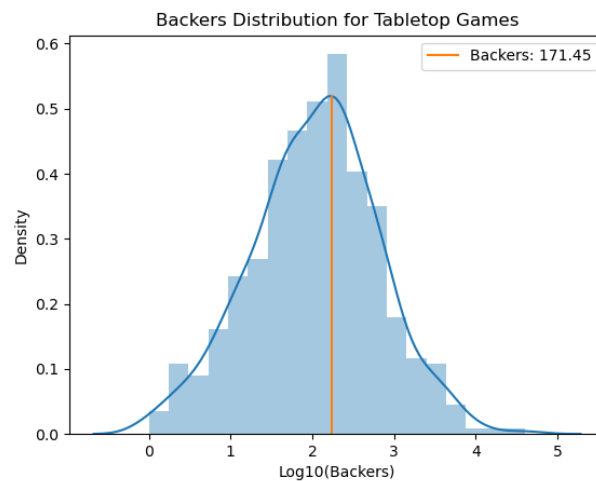


Figure 3: Density distribution of logarithm backers in Tabletop Games category.

Recommendations

The recommendations are guidelines for board game companies to follow during their Kickstarter campaigns to increase their success rates. The key variables are the major factors that impact the success rate of the campaigns.

- ❖ **Campaign Goal:** We recommend the board game company to set their campaign goal at **\$15,000** which is the minimum to launch the project.
- ❖ **Required Backers:** The company will need about **200 backers** to meet the campaign goal at \$15,000.
- ❖ **Backers Expectation:** In the Tabletop Games category, most of the campaigns have about **170 backers**. It is 15% lower than the required number of backers.
- ❖ **Campaign Duration:** **2 months** would be an optimal duration to raise more money as number of backers increases without losing too much hype in the community
- ❖ **Launch Country:** US

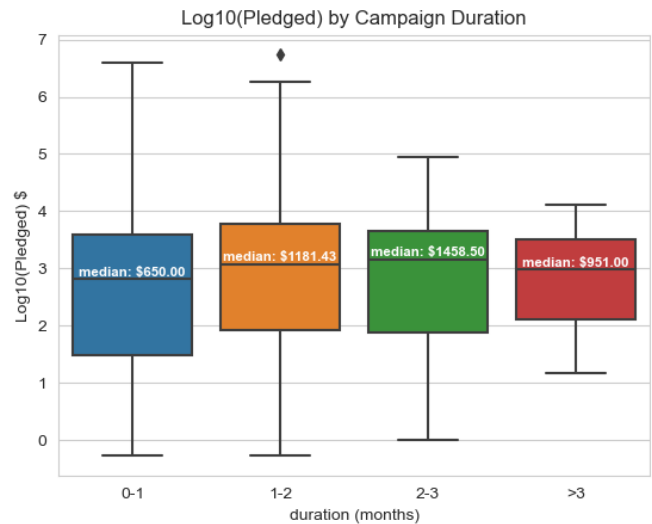


Figure 4: Boxplot of logarithm amount pledged for different campaign durations in months.

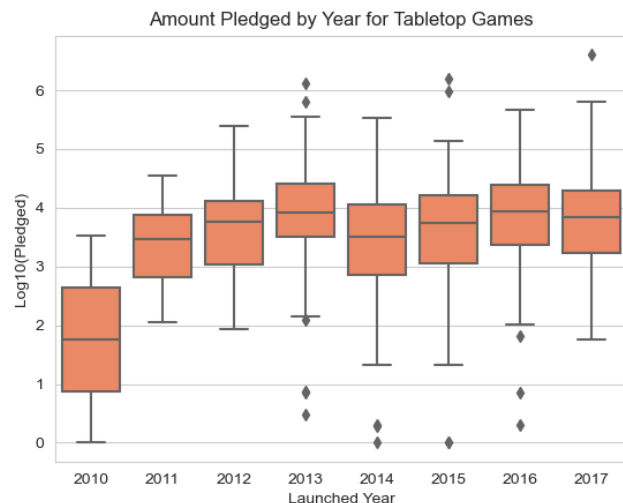


Figure 5: Boxplot of logarithm amount pledged by year for campaigns in Tabletop Games category.