
Hidden Trends on **KICKSTARTER**



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Introduction

Kickstarter is a crowd funding service that helps creators and startups find the resources and support they need to make their projects come to life. Creators make campaigns on Kickstarter where they include the description of the project and funding goal. Backers financially support campaigns by purchasing different items that the campaign offers. The Kickstarter community comes together and helps many musicians, artists, designers and other creators achieve their missions. Since their launch on April 28th, 2009, 16 million people have backed a project launched on Kickstarter, \$4.06 billion has been pledged, and 156,852 projects have been successfully funded. This report analyzes 4,114 projects using Microsoft Excel visualization tools and outlines some key hidden trends found in the data.

Data

The data was collected in May 2017 and contains 4,114 Kickstarted campaigns that took place between May 2009 and May 2017. The following attributes were collected for each campaign:

name and description of the campaign

| | |
|-------------------------|--|
| goal amount | <ul style="list-style-type: none">how much the campaign was hoping to raise |
| pledged amount | <ul style="list-style-type: none">the total amount that the campaign was able to raise |
| state | <ul style="list-style-type: none">“successful”, if the campaign was able to meet its goal“failed”, if the campaign did not meet its goal before deadline“canceled”, if the campaign was canceled“live”, if the campaign was still going when data was collected |
| backers count | <ul style="list-style-type: none">the number of backers that supported the campaign |
| launch date | <ul style="list-style-type: none">the date when the campaign started |
| deadline | <ul style="list-style-type: none">the date when the campaign ended |
| category & sub-category | <ul style="list-style-type: none">based on the its description, each campaign was categorized in one of the following categories and sub-categories (Figure 1). |

Categories & Sub-Categories

| film & video | | | | | food | games | | | music | | | | | | photography | | publishing | | | technology | | | theater | | | | | | | | | | | | | | | | | |
|--------------|-------------|-------|-----------------|--------|------------|-------------|-------------|----------------|--------------|-----------------|-------------|-------|-----------------|------------------|-------------|------------|------------|-------|-----|------------|-------------|--------|---------|--------|--------|-----------|------------------|---------|-------------|------------------|--------------|---------|----------|-------------|-------------------|-----------|-----|---------|-------|--------|
| animation | documentary | drama | science fiction | shorts | television | food trucks | restaurants | small branches | mobile games | table top games | video games | audio | classical music | electronic music | faith | indie rock | jazz | metal | pop | rock | world music | nature | people | photos | places | art books | children's books | fiction | non-fiction | radio & podcasts | translations | gadgets | hardware | makerspaces | space exploration | wearables | web | musical | plays | spaces |

Figure 1 Categories & Sub-Categories

Tools & Methods

In this project, Microsoft Excel was used to calculate new attributes from the given data and to create different visualizations that offer a better understanding of the data. The percentage-funded and average donation were calculated. The campaigns were divided into categories and sub-categories. Pivot tables and pivot charts were created to find hidden patterns in the data set.

Category pivot table

A pivot table was created to count the total number of “successful”, “failed”, “canceled” and “live” campaigns for each campaign category. (Table 1).

A stacked column pivot chart (Figure 2) was obtained from the pivot table and the following observations were made:

- The highest number of campaigns are in the theatre category.
- The theatre category contains the highest number of successful campaigns, but also the of failed campaigns.

| Count of state | Column Labels | | | | |
|----------------|---------------|--------|------|------------|-------------|
| Row Labels | canceled | failed | live | successful | Grand Total |
| film & video | 40 | 180 | | 300 | 520 |
| food | 20 | 140 | 6 | 34 | 200 |
| games | | 140 | | 80 | 220 |
| journalism | 24 | | | | 24 |
| music | 20 | 120 | 20 | 540 | 700 |
| photography | | 117 | | 103 | 220 |
| publishing | 30 | 127 | | 80 | 237 |
| technology | 178 | 213 | | 209 | 600 |
| theater | 37 | 493 | 24 | 839 | 1393 |
| Grand Total | 349 | 1530 | 50 | 2185 | 4114 |

Table 1. Count of State for each Category

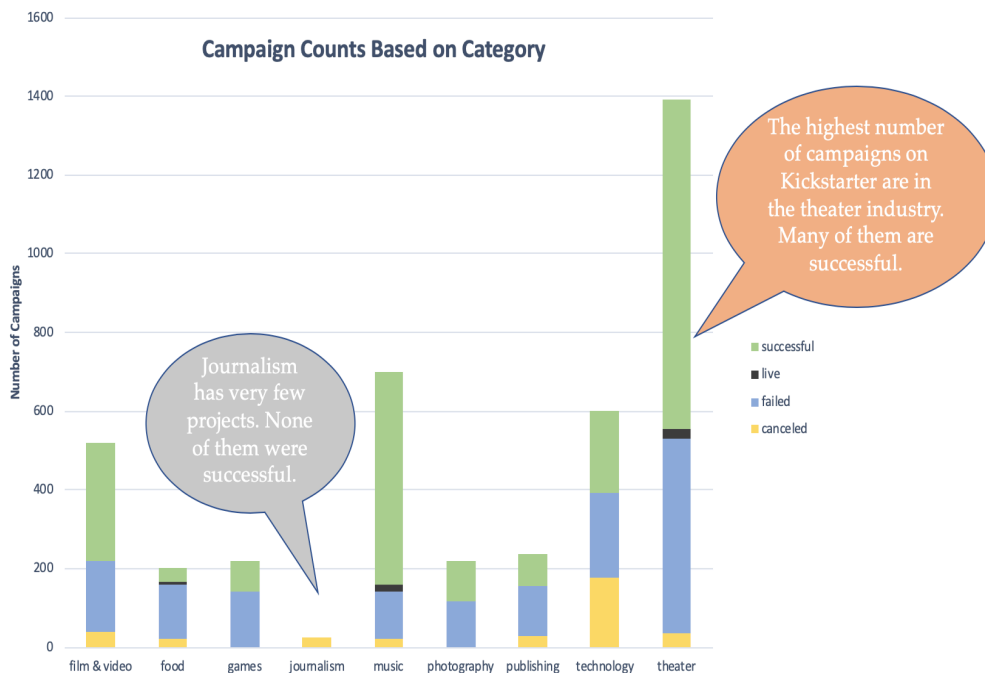


Figure 2 Campaign Counts Based on Category

• Journalism shows the lowest number of campaigns. All 24 of them were canceled.

• There are a lot more successful campaigns in Music than failed ones.

Sub-Category pivot table

A second pivot table was created to count the total number of “successful”, “failed”, “canceled” and “live” campaigns for each campaign sub-category.

The previous chart determined that theatre was the industry with the highest number of projects. From this pivot chart (Figure 4) we can see that plays, by far has the highest number of campaigns.

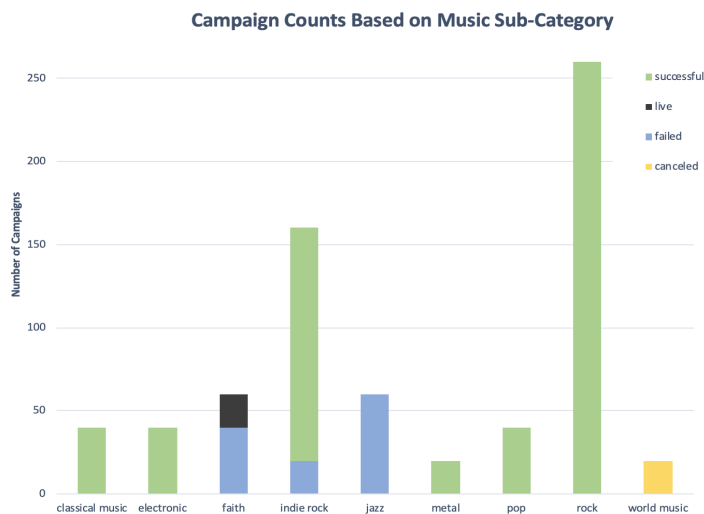


Figure 3 Campaign Counts in Music Category

Since the pivot chart can be filtered based on

| Count of state | Column Labels | | | | |
|--------------------|---------------|-------------|-----------|-------------|-------------|
| Row Labels | canceled | failed | live | successful | Grand Total |
| animation | | | 100 | | 100 |
| art books | | 20 | | | 20 |
| audio | | 24 | | | 24 |
| children's books | | 40 | | | 40 |
| classical music | | | | 40 | 40 |
| documentary | | | | 180 | 180 |
| drama | | 80 | | | 80 |
| electronic music | | | | 40 | 40 |
| faith | | 40 | 20 | | 60 |
| fiction | | 40 | | | 40 |
| food trucks | 20 | 120 | | | 140 |
| gadgets | | 20 | | | 20 |
| hardware | | | | 140 | 140 |
| indie rock | | 20 | | 140 | 160 |
| jazz | | 60 | | | 60 |
| makerspaces | | 11 | | 9 | 20 |
| metal | | | | 20 | 20 |
| mobile games | | 40 | | | 40 |
| musical | 20 | 60 | | 60 | 140 |
| nature | | 20 | | | 20 |
| nonfiction | | | | 60 | 60 |
| people | | 20 | | | 20 |
| photobooks | | 57 | | 103 | 160 |
| places | | 20 | | | 20 |
| plays | | 353 | 19 | 694 | 1066 |
| pop | | | | 40 | 40 |
| radio & podcasts | | | | 20 | 20 |
| restaurants | | 20 | | | 20 |
| rock | | | | 260 | 260 |
| science fiction | | 40 | | | 40 |
| shorts | | | | 60 | 60 |
| small batch | | | 6 | 34 | 40 |
| space exploration | 18 | 2 | | 40 | 60 |
| spaces | 17 | 80 | 5 | 85 | 187 |
| tabletop games | | | | 80 | 80 |
| television | | | | 60 | 60 |
| translations | | 10 | 47 | | 57 |
| video games | | | 100 | | 100 |
| wearables | | 60 | 120 | 20 | 200 |
| web | | 100 | 60 | | 160 |
| world music | | 20 | | | 20 |
| Grand Total | 349 | 1530 | 50 | 2185 | 4114 |

Table 2 Count of state for each Sub-Category

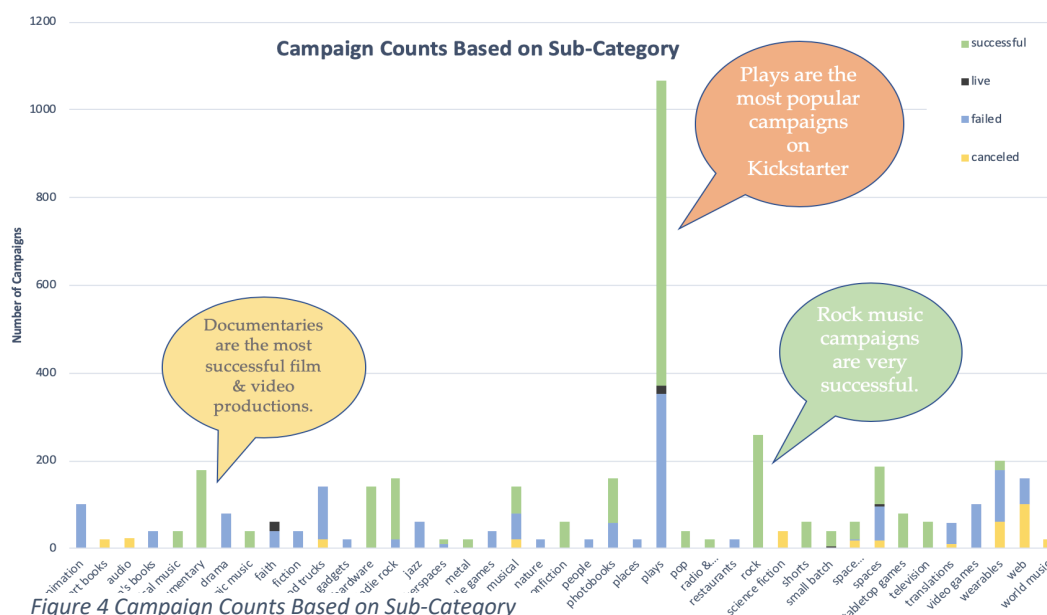


Figure 4 Campaign Counts Based on Sub-Category

the parent category, the most popular sub-category in each category can be seen. One example is the music category in Figure 3.

Start Date Line chart

A line chart (Figure 5) was created based on the starting dates of each of the campaign. This graph clearly shows that overall there are more successful campaigns on Kickstarter than the ones that failed or are canceled.

It also shows that more campaigns are started in January than in December. The data suggests that December is not a good time to start a new campaign. In particular, more than 50% of the projects that started in December failed. According to the data, a better time to start a campaign would be the month of May where there is a peak in the number of successful campaigns.

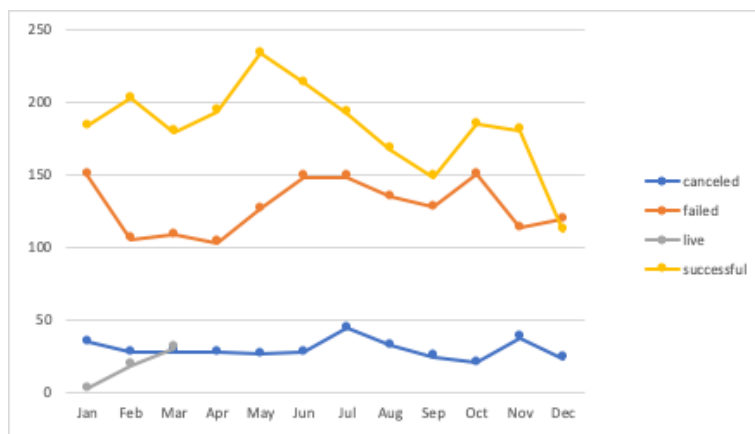


Figure 5 Campaign Counts Based on Start Campaign Date

Conclusions Made

1. The *theatre* industry category has the highest number of campaigns, out of which the subcategory *plays* has the highest number.
2. Journalism is not an industry that seems to be successful on Kickstarter. There were only 24 campaigns out of 4114 in journalism, and all of them were canceled.
3. All *rock music* campaigns were successful.
4. Overall, more campaigns are successful on Kickstarter than the failed ones, showing that Kickstarter is a great place to feature a new business.

Limitations of the Data Set

There are a few limitations to the data set and the tools that were used. Microsoft Excel can be quite slow when processing even this little amount of data depending on the operations that were taking place.











The data reveals correlation which suggest that, for example, May is the best month to start a Kickstarter campaign while December is the worst month to start a Kickstarter campaign. However, the data does not necessarily reveal why this is true. The cause for this correlation cannot be found in this data. It is important to find trends in the outcome of the different types of campaigns but finding out why these trends are happening would be of a higher interest to someone who wants to start a new campaign.

It is unknown if the chosen data for this analysis accurately represents all the 156,852 projects. Since we analyzed only 4,114 campaign, some bias might have been introduced into the data based on which campaigns were selected for analysis.

Other Possible Tables/Graphs That Can Be Created

1. What are the top 5 countries with the greatest number of successfully funded projects? What are the top 5 countries with the greatest fraction of successfully funded projects?

In order to calculate how many successful campaigns were funded in each country, a pivot table (Figure 6) was created with *country* field as rows and *state* field as columns. The value in the pivot table was *count of state*. To calculate the fraction of the successfully funded projects, the data was shown as % of row total. The table was sorted from the largest value to the smallest value based on the *successful* column. The results were the following:

| Top 5 countries with the greatest number of successful campaigns | | Top 5 countries with the greatest fraction of successful campaigns | |
|---|------|---|------|
|  United States | 1651 |  Luxembourg | 100% |
|  Great Britain | 366 |  Singapore | 100% |
|  Canada | 64 |  Great Britain | 61% |
|  Germany | 23 |  United States | 54% |
|  Australia | 19 |  Ireland | 53% |

| Row Labels | cancel | failed | live | successful | Grand Total |
|--------------------|------------|-------------|-----------|-------------|-------------|
| AT | | 2 | 1 | 3 | 6 |
| AU | 14 | 41 | | 19 | 74 |
| BE | | 1 | | 1 | 2 |
| CA | 17 | 64 | 1 | 64 | 146 |
| CH | 3 | 2 | | 1 | 6 |
| DE | 3 | 27 | | 23 | 53 |
| DK | 4 | 6 | | 4 | 14 |
| ES | 1 | 9 | | 11 | 21 |
| FR | 5 | 10 | 2 | 10 | 27 |
| GB | 25 | 205 | 8 | 366 | 604 |
| HK | 1 | 2 | | | 3 |
| IE | 2 | 4 | 1 | 8 | 15 |
| IT | 3 | 19 | | 7 | 29 |
| LU | | | | 2 | 2 |
| MX | 1 | 8 | 3 | | 12 |
| NL | 4 | 14 | 1 | 2 | 21 |
| NO | | 5 | | 2 | 7 |
| NZ | 4 | 5 | | 3 | 12 |
| SE | 5 | 9 | | 7 | 21 |
| SG | | | | 1 | 1 |
| US | 257 | 1097 | 33 | 1651 | 3038 |
| Grand Total | 349 | 1530 | 50 | 2185 | 4114 |

Figure 6 Outcome counts based on country

2. How does the goal amount influence the outcome?

In order to answer this question, the data was distributed in 8 different categories based on the goal amount the project was hoping to get. The categories were the following:

- Goal is less than \$500.
- Goal is between \$501-\$1,000.
- Goal is between \$1,001-\$2,500.
- Goal is between \$2,501-\$5,000.
- Goal is between \$5,001-\$10,000.
- Goal is between \$10,001-\$25,000.
- Goal is between \$25,001-\$50,000.
- Goal is more than \$50,000.

A pivot chart was created (Figure 7) and the following observations were made:

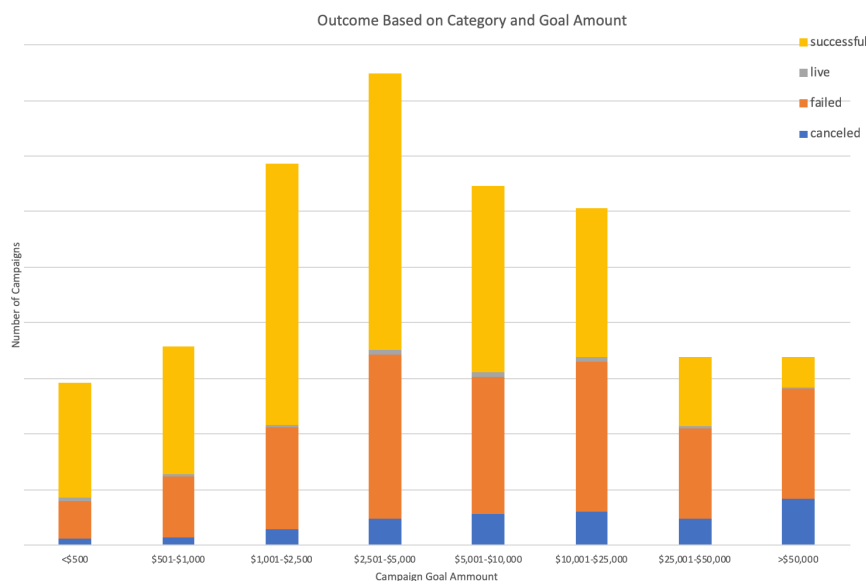


Figure 7 Outcome based on Category and Goal Amount

- Most campaigns chose a goal between \$2,501-\$5,000.
- The number of failed campaigns is much smaller than the number of successful campaigns when the goal is less than \$500.
- The number of successful campaigns that have a goal bigger than \$50,000 is very small.
- As the goal amount increases, the number of successful campaigns tends to decrease.

3. Given a category and a goal range, what is the probability a new campaign reaching its goal budget?

In order to answer this question, the *Category* field was added to the pivot table created for the previous question and the data was displayed as percentage of the row total. The successful outcome was plotted in a bar chart (Figure 8).

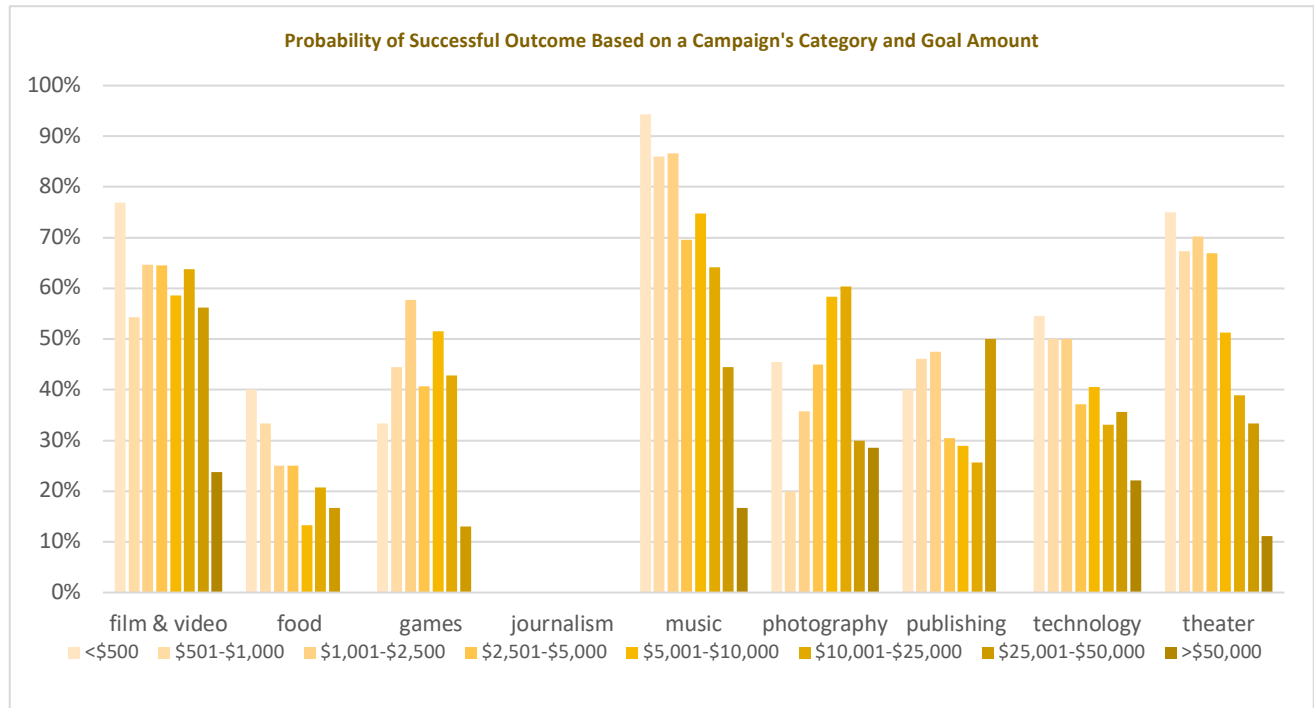


Figure 8 Probability of Successful Outcome based on Goal and Category

This chart in Figure 8 can be used for new campaigns to make informed decisions. For example, it can clearly be seen that a new campaign in music is more likely to succeed if the goal amount is less than \$500. This however does not apply for the publishing business. In the publishing business, more campaigns succeeded that had a goal amount higher than \$50,000.

Despite the data limitations used for this assignment, the dataset could still be used to drive interesting conclusions. These are just a few examples of analysis that can be done with this data. There are many other methods that can be used to drive insights from the data.