



PREDICTING KICKSTARTER CAMPAIGN SUCCESS

A Data Driven Case Study

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1. Introduction

Our company has been hired as a consultant for an independent firm to make recommendations to help Kickstarter campaign succeed. Our client is a board game company planning to raise at least \$15,000 USD to get the project started. They are planning to expand the business and maximize the funding from Kickstarter campaign.

Our client is asking us for a data-driven recommendation to achieve their goal of successfully raising the fund from the Kickstarter campaign. This report presents data-driven and actionable business recommendations to raise maximum amount of money from the Kickstarter campaign. Data analytics tools such as SQL, Python, and Excel were used for data cleaning, data wrangling, data analysis and data visualization to get insights into past Kickstarter campaigns. Based on the data from past Kickstarter campaigns, recommendations about realistic campaign goals, and number of backers were made.

2. Background

Kickstarter is an American public-benefit corporation based in Brooklyn, New York, that maintains a global crowdfunding platform focused on creativity. The company's stated mission is to "help bring creative projects to life". As of July 2021, Kickstarter has received nearly \$6 billion in pledges from 20 million backers to fund 205,000 projects, such as films, music, stage shows, comics, journalism, video games, technology, publishing, and food-related projects. People who back Kickstarter projects are offered tangible rewards or experiences in exchange for their pledges. This model traces its roots to subscription model of arts patronage, where artists would go directly to their audiences to fund their work.

Kickstarter is a Crowdfunding website that provides a platform to use the small amounts of capital raised from a large number of individuals to finance a new business venture. Crowdfunding makes use of the easy accessibility of vast networks of people through social media and crowdfunding websites to bring investors and entrepreneurs together, with the potential to increase entrepreneurship by expanding the pool of investors beyond the traditional circle of owners, relatives, and venture capitalists.

In Kickstarter campaigns, every creator sets their project's funding goal and deadline. If the project reaches its funding goal, all backers' credit cards are charged on the deadline. Funding on Kickstarter used an all-or-nothing model. If the project falls short of its funding goal, no one is charged, and the project receives zero funding. Kickstarter cannot be used to offer financial returns or equity or to solicit loans.

Data for different Kickstarter campaigns with their respective outcomes have been provided for this project. This data contains details for each campaign such as the amounts of money raised, number of backers, outcome, country, and the currency in which the money was raised.

3. Design of the Case Study

This study was carried out to achieve the following objectives:

1. The realistic Kickstarter campaign goal (in dollars) should our client aim to raise?
2. Number of backers that would be needed to meet the campaign goal.
3. Number of backers that our client can expect based on the trends in their category from other Kickstarter campaigns.

In order to achieve these objectives, data analytics tools such as SQL, Python, and Excel were used for data cleaning, data wrangling, data analysis and data visualization to get insights into past Kickstarter campaigns. First, data was imported to MySQL for preliminary data analysis. Preliminary data analysis was performed on this tabular data after cleaning. The final cleaned data was exported as a csv file to be further used in Python, and Excel. Python was used for further data analysis and data visualization. Based on the data analysis using the above methodology and tools actionable recommendations are proposed in the conclusion and recommendation section.

4. Analysis of the Results

This section presents the result of preliminary data analysis carried out in MySQL and data visualization performed in Python.

4.1 Preliminary Data Analysis

Preliminary data analysis was performed in MySQL to understand the goals of past Kickstarter campaigns and their backers. It was noted that 35.8 % of the campaigns were successful in raising the targeted amount.

Table 1 The average and median goal amount for successful and failed campaigns.

Campaign Outcome	Percentage (%)	Average Goal (\$)	Median Goal (\$)
Successful	35.8	9743.02	4000
Failed	52.8	97520.02	7148.58

From Table 1, it can be observed that the average and median values of successful campaigns are lower than the average and median values for failed campaigns. Therefore, it can be said that in general, the failed campaigns had higher dollar goals than the successful campaigns.

The Kickstarter campaigns have been divided into different categories and subcategories based on the nature of business for which the money was raised. The top three categories which had the greatest number of backers were Games, Technology and Design while the top three subcategories with the most number of backers were Tabletop games, Product Designs and

Video Games. On the other hand, the bottom three categories that had the least number of backers were Art, Food, and Fashion while the bottom three subcategories with the least number of backers were Crafts, Journalism, and Music. The top three categories that had raised the most money were Film & Video, Technology, and Publishing while the top subcategories which had raised the most money were Technology, Film and Video, and Documentary. Conversely, the bottom three categories which had raised the least money were Dance, Comics and Crafts while the bottom three subcategories which raised the least money were Glass, Residencies, and Textiles.

As our client is a US-based board game company, therefore, data related to US board companies were analyzed in the next step. The most successful board game company with the project name Ghostbuster: The Board Company had raised an amount of 250,000 USD. This project had 8396 backers. Further, the three countries with most successful campaigns in terms of dollars raised and backers were United States, Great Britain, and Canada.

The average, max and min campaign lengths are 35 days, 92 days and 1 day. Campaigns below 35 days are called shorter campaign lengths while the campaigns above 35 days are called larger campaign lengths for this study. On average an amount of \$8921 was raised for campaigns with length less than 35 (short campaign length) while an amount of \$11216 was raised for the campaigns in length greater than 35 (larger campaign length). Therefore, it can be said that the campaigns with larger campaign lengths raised more money.

4.2 Data Visualization

Figure 1 shows the outcome percentage for different Kickstarter campaigns. It was noted that 35.8% of the total campaigns were successful to raise the targeted amount. 52.8% of the campaigns failed to raise the targeted funding and 10.2% of the campaigns were canceled.

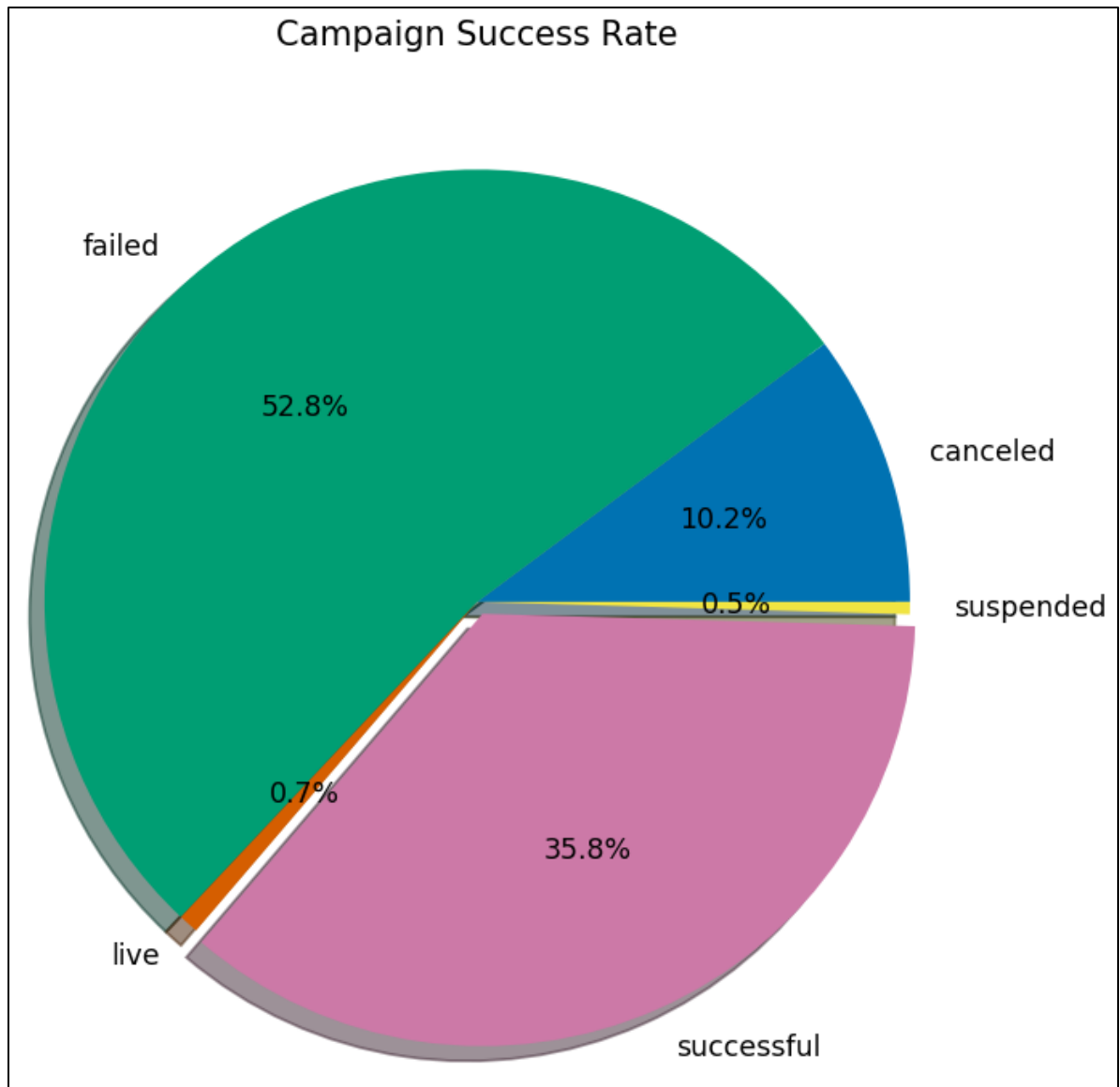


Figure 1 Success rate for different types of Kickstarter campaigns.

For further analysis of Kickstart campaigns, only successful campaigns are considered. Figure 2 shows the total amount of funding raised by categories for successful campaigns. It was observed that the Film and Video category had the maximum goal amount raised. The games category under which board game projects fall was second highest in terms of total dollars raised.

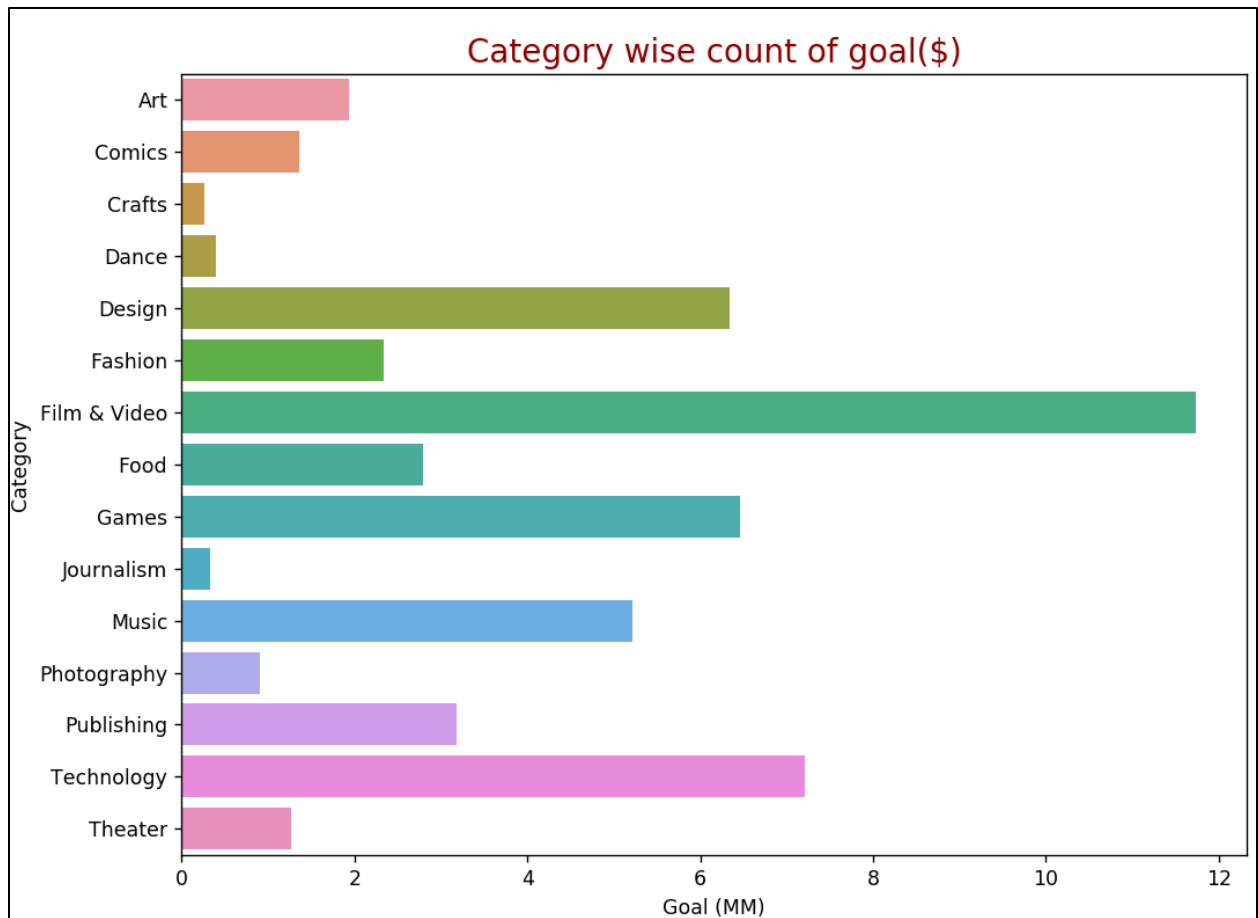


Figure 2 Total amount of funding raised by categories for successful campaigns.

Figure 3 shows the total number of backers by different categories for successful campaigns. The games had the highest number of backers than other categories. The technology category had the second largest number of backers after games category. The board game project falls under Games category which had highest number of backers.

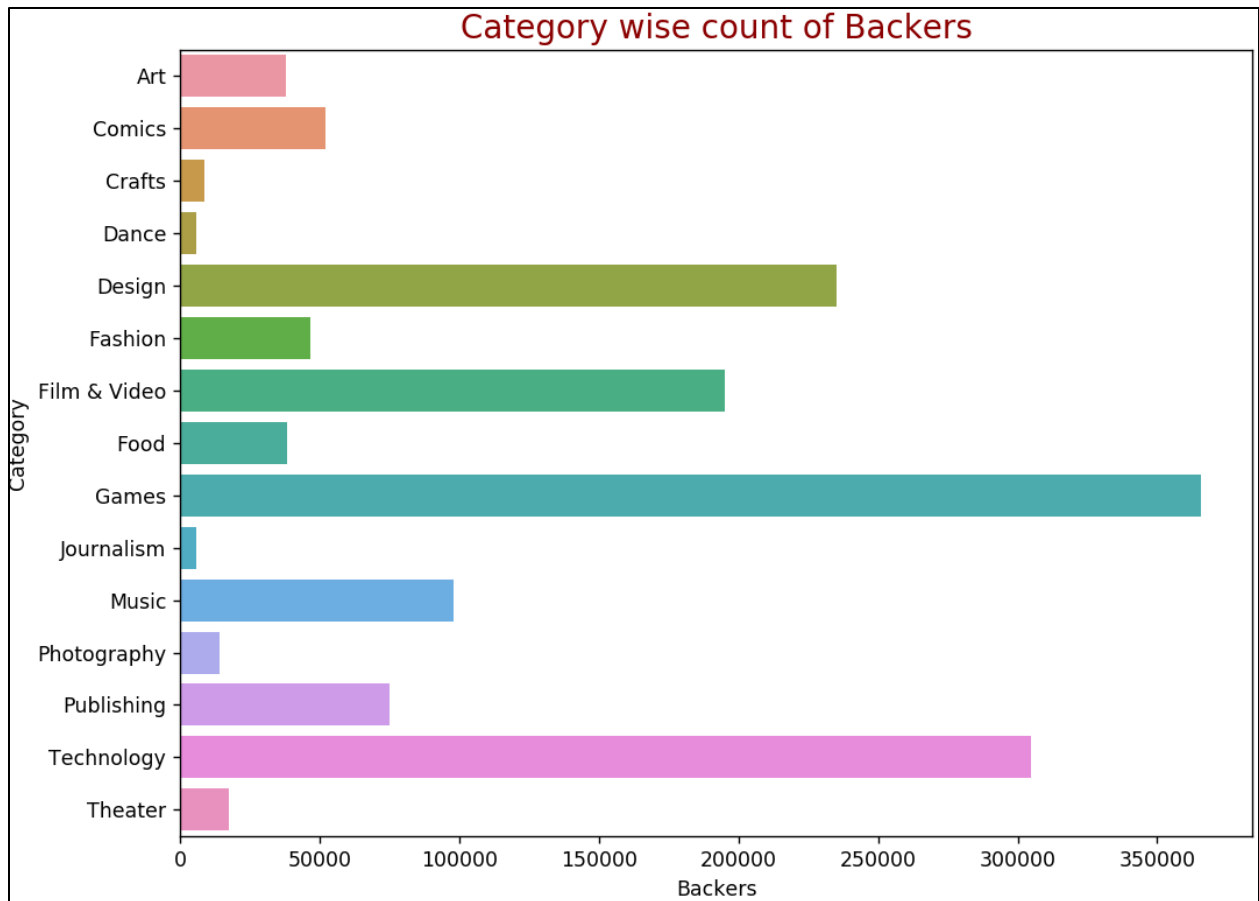


Figure 3 Total number of backers by different categories for successful campaigns.

Figure 4 shows the amount of money raised by successful board game projects. The most successful board game campaign raised an amount of \$25,000 USD as shown in Figure 4. There were seven projects which raised an amount of \$25,000 USD successfully. However, it can be observed in the plot that this amount is an outlier value. The mean value of raised amount for the successful board game campaigns is \$10258 USD while the median and third quartile values are \$5000 USD and \$10000 USD, respectively. This shows that our client's minimum target of raising \$15000 USD for the board game company is an ambitious target and requires further analysis.

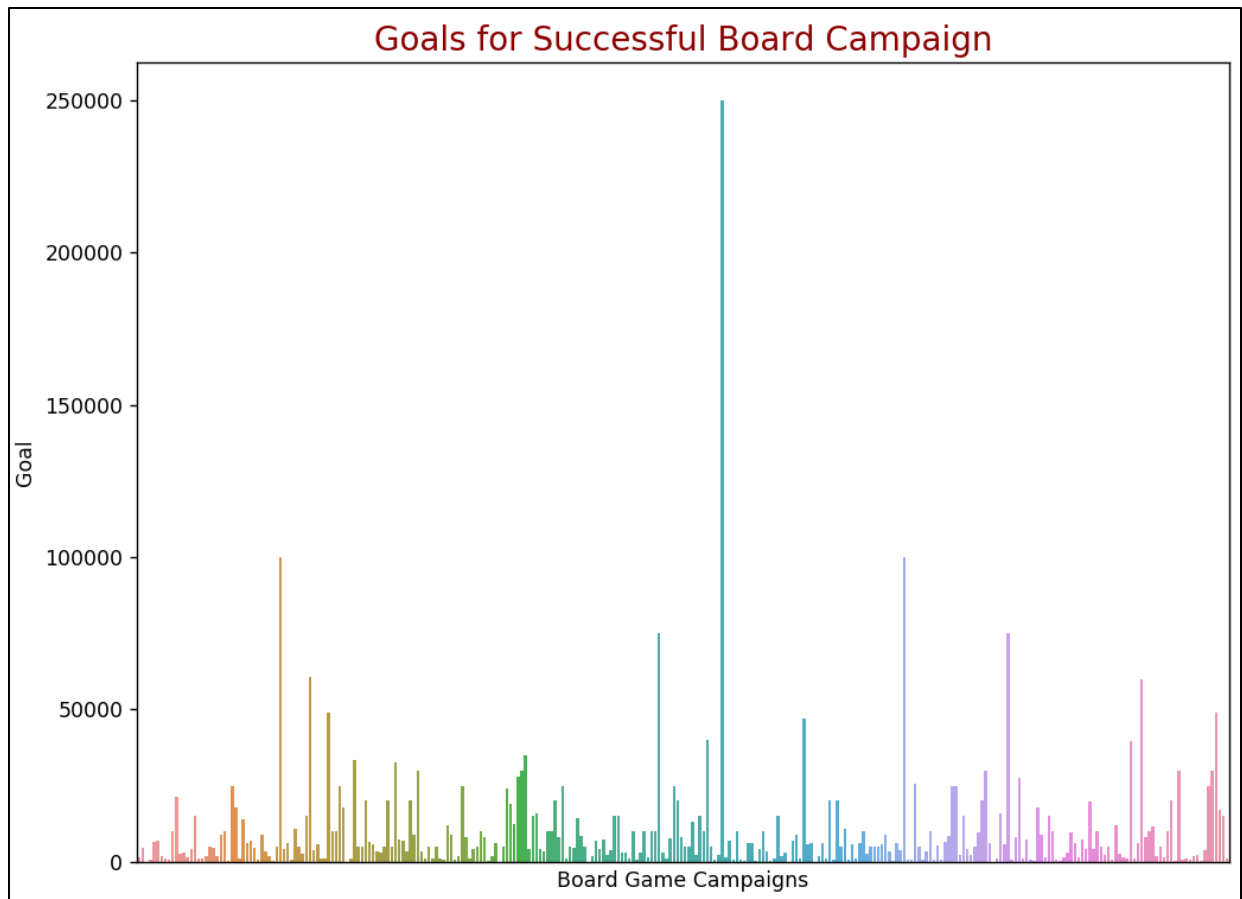


Figure 4 Targeted amount for successful board game campaigns.

Figure 5 shows number of backers for successful board game projects. The most successful board game campaign had number of backers between 20 to 13765 as shown in Figure 5. However, it can be observed in the plot that these minimum and maximum numbers are outliers. The mean value of number of backers for the successful board game campaigns is 786 while the median and third quartile values are 222 and 606, respectively. This shows that our client should expect approximately 500 backers.

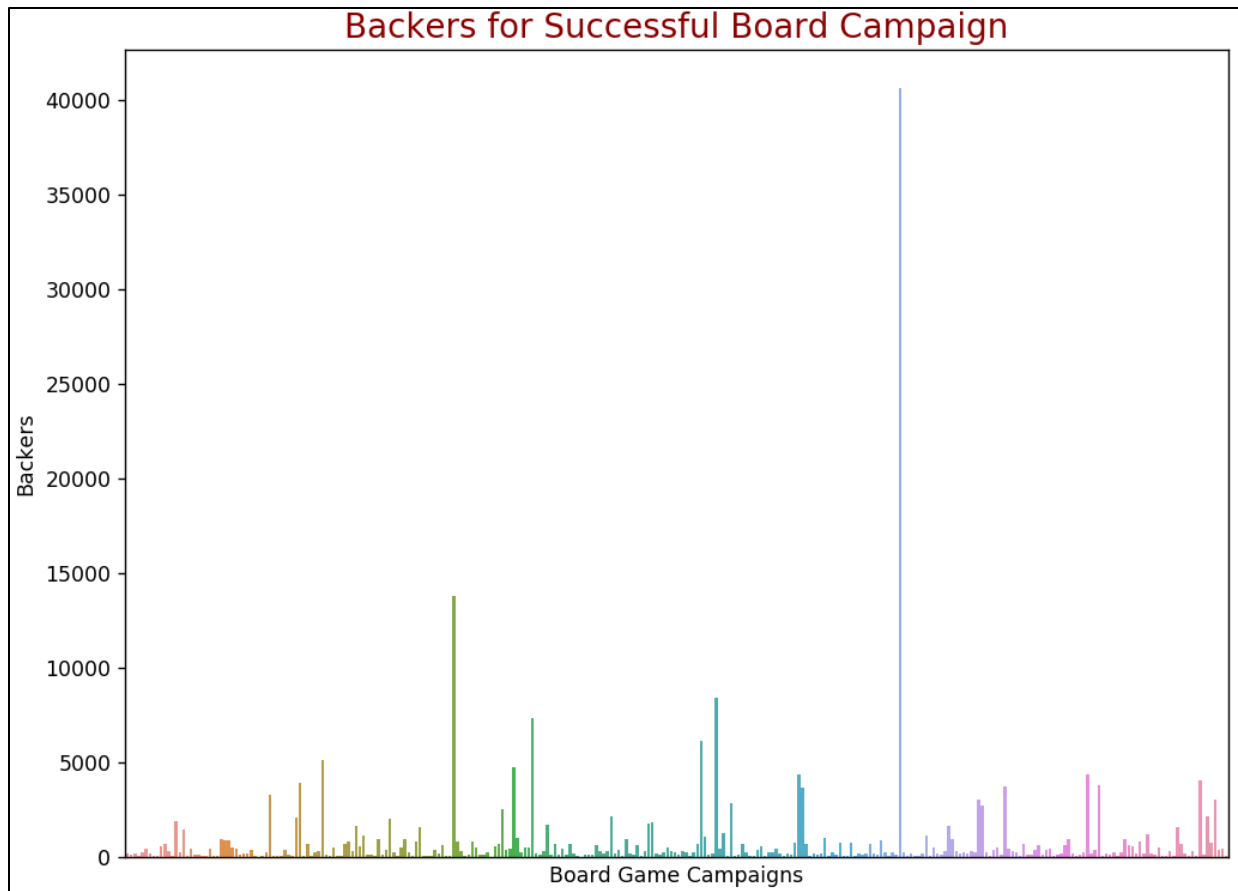


Figure 5 Number of backers for successful board game campaigns.

Figure 6 shows length of time for successful board game projects. The most successful board game campaign had campaign length between 25 to 45 days as shown in Figure 6. The mean value of length of time for the successful board game campaigns is 30 days while the median and third quartile values are 30 and 31, respectively. This shows that our client should expect approximately 30 days length of time for their campaign.

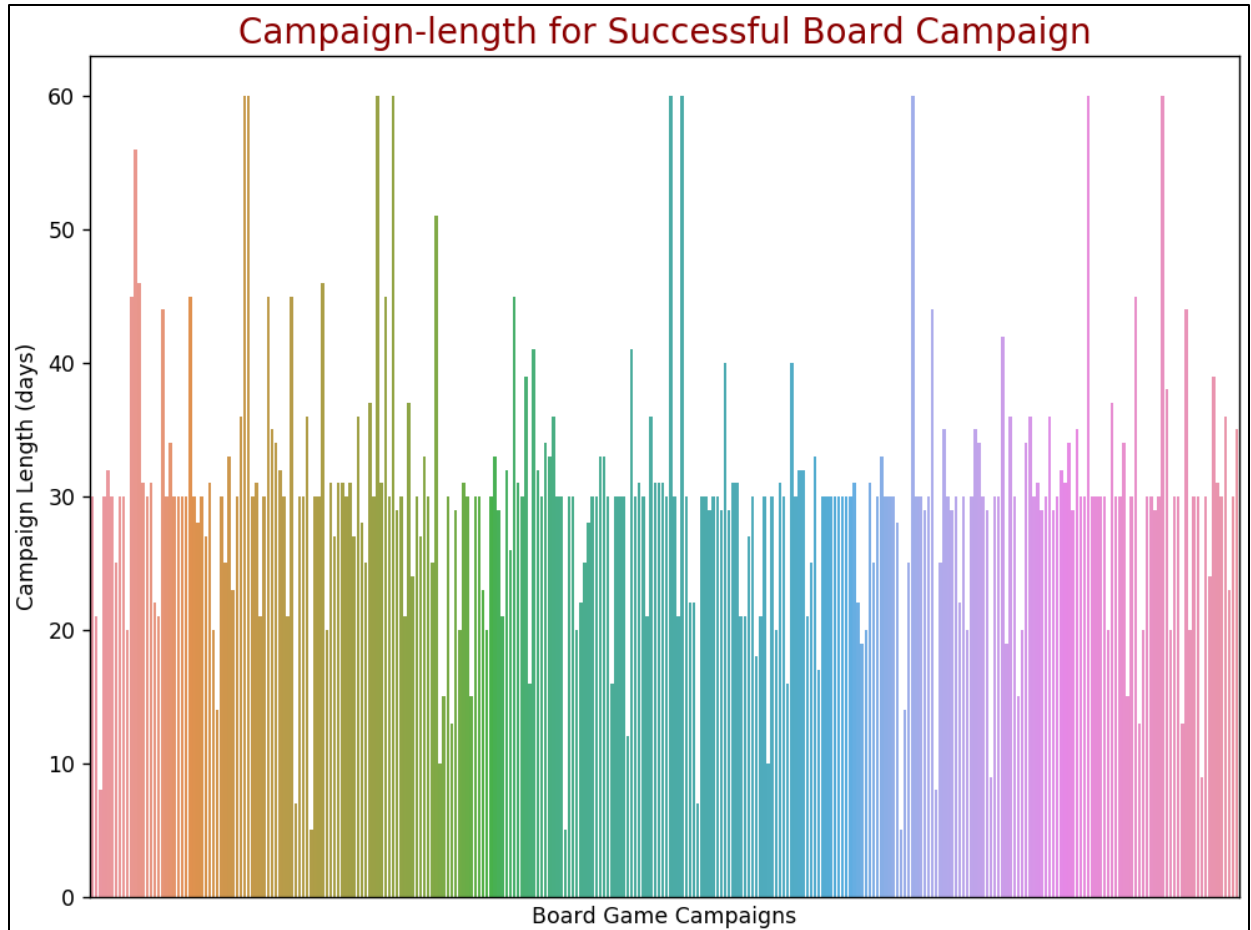


Figure 6 Length of time for successful board game campaigns.

5. Conclusion and Recommendation

The board company should target to raise approximately \$10,000 from the Kickstarter campaigns with a campaign length of 30 days in the US. The board company can expect approximately 500 numbers of backers.

The successful board game campaigns had raised a mean, median, and third quartile amount of \$10258 USD, \$5000 USD, and \$10000 USD, respectively. Therefore, it is recommended that the client should target to raise an amount of \$10000 USD.

The successful board game campaigns had mean, median, and third quartile number of backers equal to 786, 222 and 606, respectively. Also, the greatest number of successful campaigns were held in the US. Therefore, it is recommended that our client realistically expect approximately 500 numbers of backers in the US.

Finally, the successful board game campaigns had mean, median, and third quartile length of campaign time equal to 30 days, 30 days, and 31 days, respectively. Therefore, it is recommended that our client should carry out a Kickstarter campaign of length of 30 days.

6. References

<https://brainstation.io/course/online/remote-data-science-bootcamp>