Kickstarter Project

A Kickstarter campaign is a great way to raise funds for your project . However, it is important to make note of the most important variables that can help you. Additionally, it is important to be aware of the various campaign trends within your category so you can come up with a realistic goal. This can help you make informed decisions and help you know what to expect. In this report, I provide some descriptive data of Kickstarter campaigns derived from the dataset, so we understand the campaigns' environment. Furthermore, I provide a predictive model which helps us predict the outcome of any campaign with a 92% accuracy, juxtaposed with the important variables that one would need to consider. This means, given the same variables, we have a 92% probability of correctly predicting any campaign using the model, including ours!
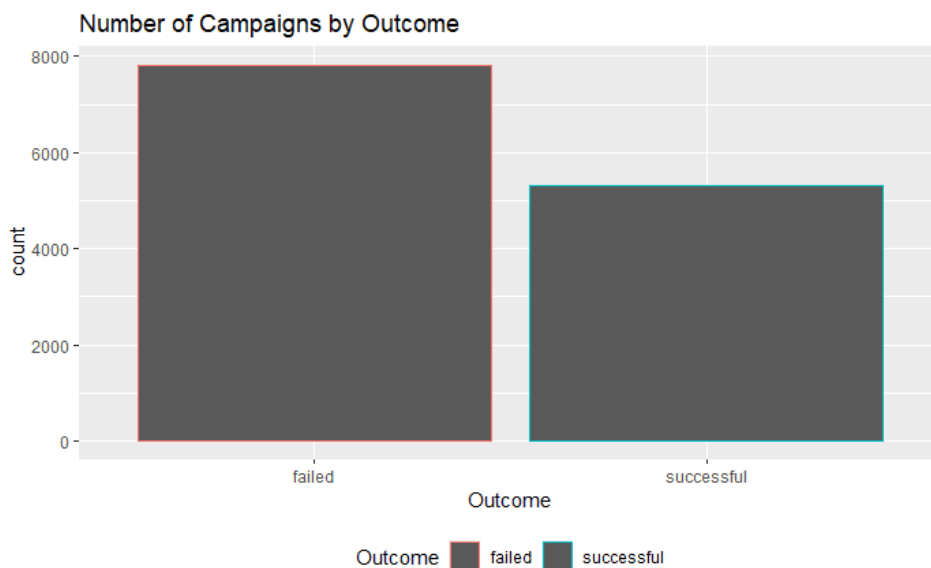
Descriptive Analysis

Fig 1 Successful Vs Failed Outcomes

First, we notice that there are more failed campaigns than successful ones from **Fig 1**. This encompasses campaigns from all countries, categories and sub_catgories. Since we are launching our campaign in US dollars, hence, assuming in the USA, we filter our dataset by currency to USD. Unfortunately, it is the same trend, we still have more failed campaigns (59%) than successful ones (41%).
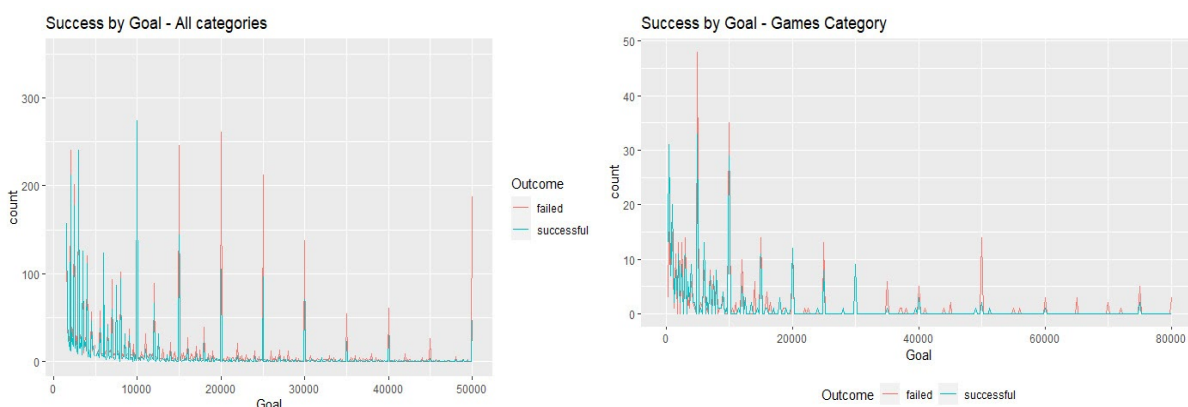

Fig 2

Moreover, successful campaigns have a relatively smaller goal than failed ones in the USA. As we can see from **Fig 2**, the green line ('Successful Outcome) is denser between 0 and about $10,000 goal, than to the right of the $10, 000 goal mark for all categories. Successful campaigns for all categories average just USD$9,975.66 vs USD$101,653 for failed ones. The same trend (green line) is seen for just the Games

category up to about USD$15 000. Hence, most campaigns post this goal fail. The average for successful game campaigns is USD$13,893, whereas failed ones are USD$34,885. Since our goal is to raise $15,000, our goal is feasible, we are just at the mark where most campaigns start to fail.
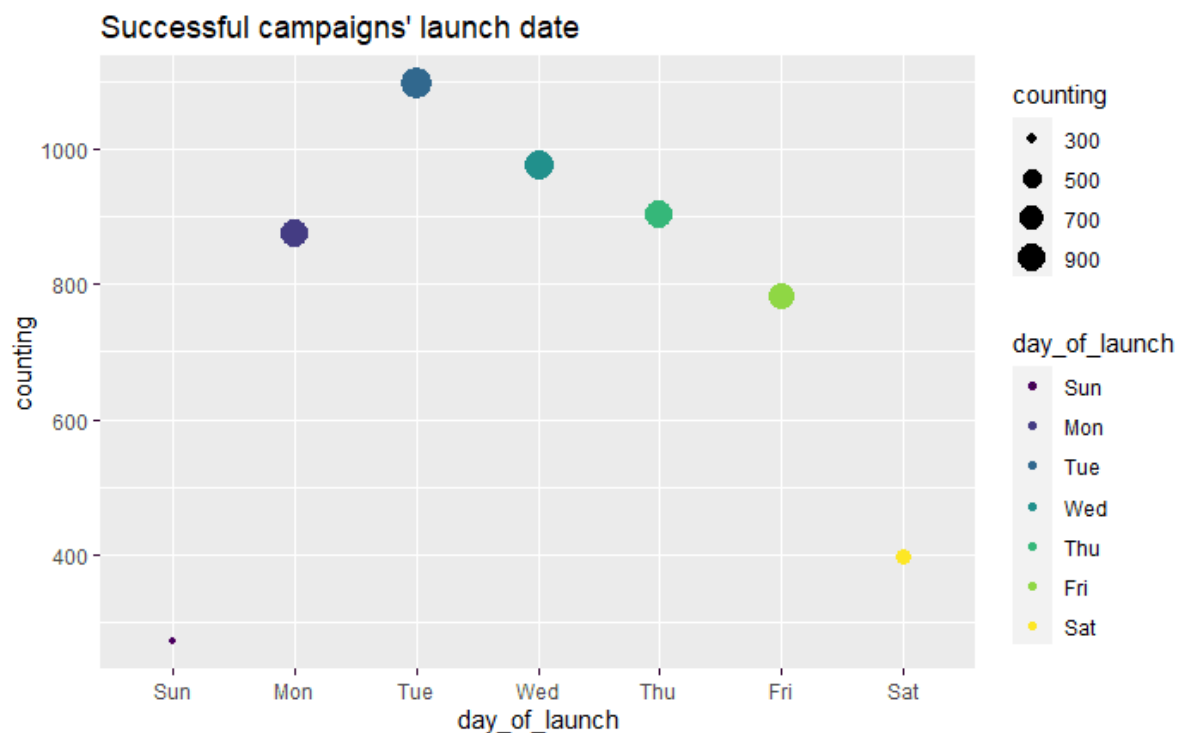

Fig 3 Day of Week successful campaigns launched

We also consider when to launch our campaign. The figure above shows the day of the week most successful campaigns were launched. Tuesday and Wednesday are the best days. This implies day of the week is an important variable to have a positive outcome.
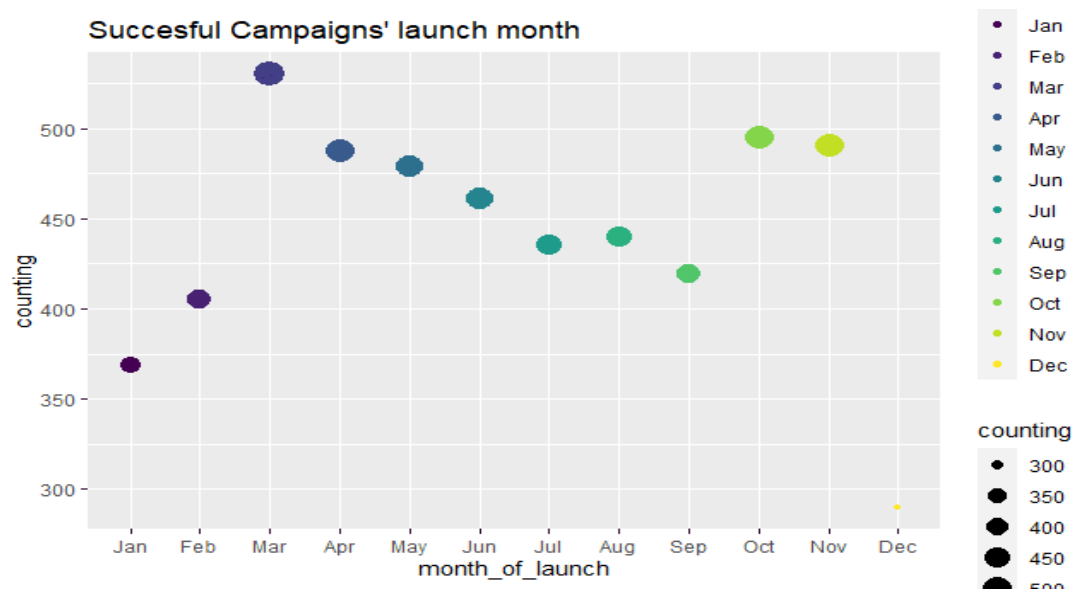

Fig 4 Month launched for successful campaigns

Additionally, the month of the campaign is also important as displayed from the graph above, March being the best month to launch a campaign.

Another interesting discovery is that some categories are not only successful, but overfunded as seen below on **Fig 5**. Notably, Film and Video is the most overfunded.
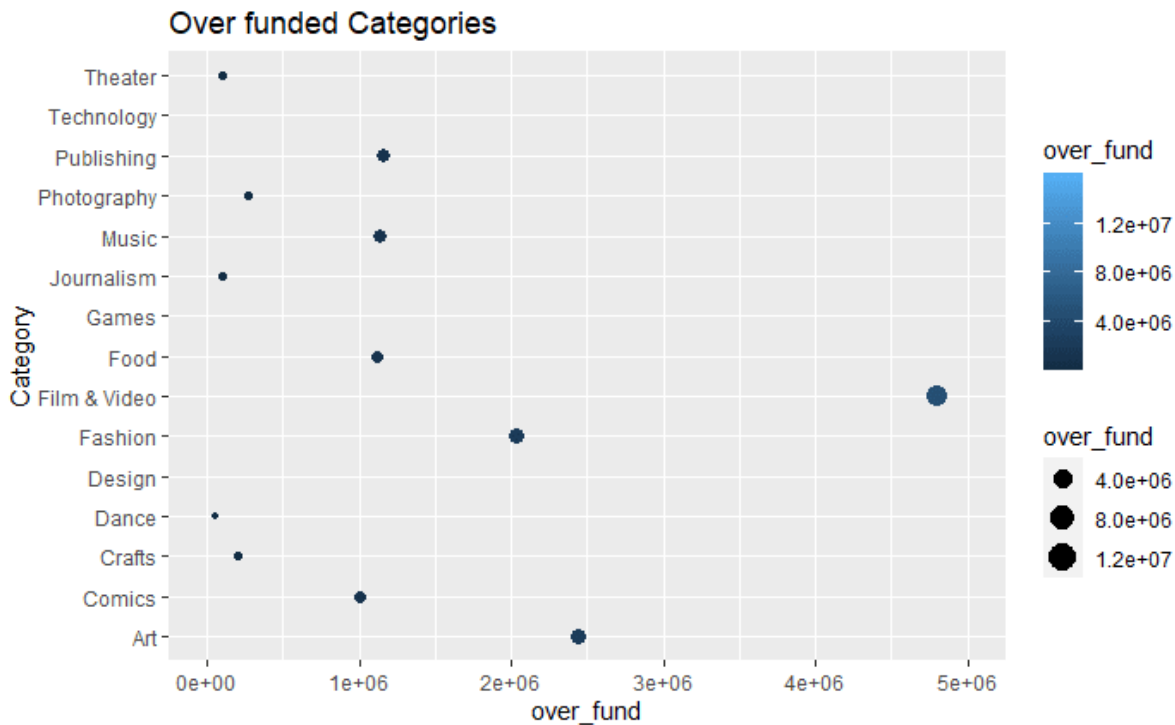
Fig 5 Over Funded Projects

In terms of total money raised, the US, Great Britain and Australia are the top 3 respectively. This is a positive because you are going to launch a campaign in the US. The top 3 categories with the most backers are Games, Technology and Design with an average duration of 32, 35 and 35 days respectively. The worst backed are dance, journalism and crafts. The top 3 categories with the most amount raised are Film, Tech and Design, and the bottom 3 are the same as the least backed. This suggests that the more the backers, the more likely a campaign is successful. In-fact, there is a strong positive linear relationship between Backers and Goal for both all categories (0.67), and gaming when filtered (0.55).
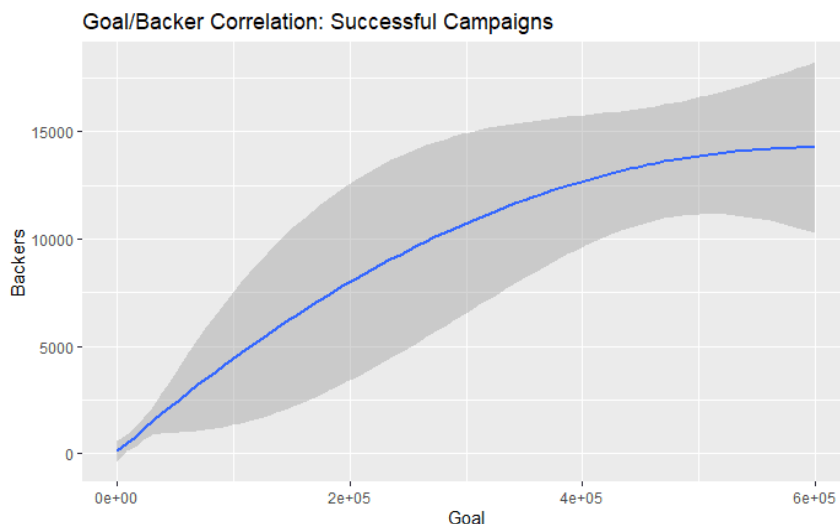

Fig 6 Correlation between Goal and Backers

An anomaly from this suggestion is film which has less backers than Games but more money raised. This is because as we have seen, that category is way over-funded.

The most successful board game company is UnderWorld Ascendant with $600 000 raised by 13987 backers. The US also ranks top in terms of number of Backers.

Predictive Analytics

From the initial dataset, I extracted new features, namely, day of launch, month of launch, as seen from the first 2 graphs. I also engineered 2 new variables, 'Special_Name' and 'Length of name'. According to BlueWinston, putting special characters in a campaign name can be effective to grab the attention of potential backers, hence more pledges and an increased possibility of meeting a campaign's goal.[1]
For example, say a campaign's name is BrainStation. Capitalizing the name **BRAINSTATION** can easily grab your attention. Or adding special characters like **#BrainStation!**. Hence, if a campaign's name has any capitalized words, digits or special characters, I labelled it as a special name.

With our response variable being Outcome, I filtered the dataset to campaigns whose outcome are either Failed or Successful. I then used a Random Forest model to predict the outcome of a campaign, which achieved a 92% accuracy!

Additionally, I utilized Random Forest's ***feature_importance_*** to see which features are more effective in classifying an Outcome. The most important features are **number of Backers, Goal, Category and month of launching the campaign**. The **special_name** was actually the least, but removing the feature from our independent variables does not necessarily improve our accuracy.

From this information, it will be ideal if we can launch your campaign in March, on a Tuesday and aim for at least 90 backers, to achieve our goal of $15 000. If at the very least, we aim for the average in the Games category of $13893, we need to have at least 85 Backers. The average number of backers in the gaming category is 426 for both failed and successful campaigns. The average for failed and successful are 62 and 863 respectively. Hence, realistically, we can be confident to expect enough backers to have a successful campaign, according to our model which has a 92% accuracy. Additionally, with a positive correlation of 0.55 between Goal and number of Backers for successful campaigns in the gaming category, we can be more confident that our campaign will be successful.

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[1] https://www.bluewinston.com/engage-with-people-through-special-characters-in-your-dsa-ads/