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Crowdfunding Excel Challenge

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**Introduction**

In recent years, crowdfunding platforms have experienced a surge in popularity, attracting a diverse range of users. While crowdfunding offers an avenue to launch innovative products and garner attention, not all projects achieve their funding goals. Consequently, organizations invest significant resources in analyzing past projects to uncover strategies for achieving success. The purpose of this report is to analyze a database of 1000 sample projects to uncover any hidden trends to help increase success of a crowdfunding campaign.

**Methodology**

The data in the crowdfunding set contains a variety of information about projects launched, outcomes of campaign, goal and amount pledged, along with much more. Data for this dataset was generated by edx Boot Camps LLC and is intended for educational purposes only.

**Overview of Crowdfunding Projects**

A screenshot of a computer

Description automatically generated

Conditional formatting was used to analyze outcomes of 1000 campaigns by color depending on whether the associated campaign was successful, failed, canceled, or is currently live. Of all the campaigns in the data set 57% were successful. Only 37% of the campaigns failed, and just 6% were canceled. In order to find how much money a campaign made relative to its initial funding goal, the percentage each campaign was funded was also considered. Average donation of each campaign was also found to determine how much each project backer paid on average.

**Conclusions**

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A few things can be learned by narrowing the initial data to count how many campaigns were successful, failed, canceled, or are currently live per category. Theater is the category with not only the most campaigns, but also the most successful campaigns. Film and video have the second-most successful campaigns, followed closely behind by campaigns in the music category. Based on this data, it can be concluded that Theater campaigns breed the most successful campaigns.

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The pivot table and graph above show how many campaigns were successful, failed, canceled, or are currently live per subcategory. Based on the data, plays had by far the most successful campaigns. Out of the film and video category, documentaries is the subcategory with the most successful campaigns. Out of the music category, rock had the most successful campaigns. Rock had slightly more successful outcomes than documentaries. Based on the data, it can be inferred that plays are project types that breed successful crowdfunding campaigns.

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The above pivot table and graph shows the outcomes of the projects based on the dates they were launched. According to this analysis, July had the most successful campaigns, followed closely behind campaigns launched in January. Campaigns launched in September are less likely to be successful based on the data.

**Limitations**

A limitation of the dataset could be sampling bias. The dataset may not be representative of the population of organizations that conduct crowdfunding campaigns due to potentially biased sampling methods. For example, most of the campaigns were in the theater category. Responses could have come from a specific demographic group, and the results may not generalize to the broader population. Another limitation could be limited scope. The dataset may only capture a narrow aspect of crowdfunding campaigns that limit the generalizability of findings. Confounding variables are factors that are associated with both the independent and dependent variables in a study, making it difficult to determine causal relationships. Failure to account for confounding variables might lead to biased results.

**Future Research**

One possible table and graph that could be used to gain farther insight on crowdfunding campaigns is funding goal analysis. Examining the relationship between project success and the initial funding goal will help determine what makes a campaign successful. Another factor influencing project success could the duration of the campaigns. This analysis of the impact of campaign duration on project success rate would be valuable to determine how long a campaign should be run to achieve the best outcomes.

**Crowdfunding Goal Analysis**

A graph with lines and numbers

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To begin analyzing the crowdfunding goal, the count of how many successful, failed, and canceled projects were created with goals within the ranges listed above. The percentage of projects that were successful, failed, or canceled per goal range was then calculated. Above is also a line chart that graphs the relationship between a goal amount and its chances of success, failure, or cancellation.

**Statistical Analysis**

It might be common that one would use the number of campaign backers to assess the success of a crowdfunding campaign. For gaining an in-depth understanding of campaign backers, the following summary statistics table evaluates the number of backers of successful and unsuccessful campaigns.

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A screenshot of a graph

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Both campaigns exhibit right-skewness, as indicated by the differences between the mean and median. Both campaigns have outliers, with maximum values far exceeding the median. The mean is substantially higher than the median in both cases, suggesting that a few campaigns had significantly higher support, skewing the mean. In the successful campaign, the difference between the mean and median is larger, indicating potentially more extreme outliers. In both cases, the median provides a better summary measure of the typical level of support, as it is less influenced by outliers. The mean may overestimate the typical level of support due to the influence of extreme values.

Both campaigns have large variances and standard deviations, indicating considerable variability in the number of backers around the mean. The successful campaign has higher variance and standard deviation, indicating greater variability in support compared to the unsuccessful campaign. This makes sense because successful campaigns may attract a wider range of backers, including both those who contribute small amounts and those who contribute large amounts. On the other hand, unsuccessful campaigns may have less variability, as they might attract fewer backers overall, with contributions possibly clustering around lower values.