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Module 1 Challenge

***Given the data provided, what conclusions can we draw about crowdfunding campaigns?***

* Based on the sample data and analysis, a notable observation is that there are more successful campaigns than failed ones. This overall trend could suggest a positive environment for crowdfunding, where many projects can secure support from backers.
* The data reflects a wide range in the number of backers for both successful and unsuccessful campaigns. Successful campaigns tend to have a higher mean number of backers (851) than unsuccessful ones (586). This indicates that successful campaigns are more effective in engaging a larger audience. Creators should focus on building a strong appeal for their projects to attract more backers, potentially leading to campaign success.
* Different project categories may require unique strategies for crowdfunding success. Categories like plays and rock demonstrate that creators within specific niches may better understand the type of people they are looking to for support and devise methods and strategies that appeal to them.

***What are some limitations of this dataset?***

While the provided dataset offers valuable insights into crowdfunding campaign outcomes, it also has certain limitations that must be considered when interpreting the results:

Lack of Contextual Information: The dataset lacks contextual information about each campaign, such as the quality of the project, the marketing strategy employed, or the reputation of the creators. With this context, it's easier to understand fully the factors influencing campaign success or failure.

Economic Conditions: The success of crowdfunding campaigns can be influenced by economic conditions, and datasets may not account for macroeconomic factors that affect backers' willingness to contribute.

No Geographic Information: The dataset does not include information about the geographic location of campaigns. Regional differences, cultural preferences, and varying levels of crowdfunding awareness can influence campaign outcomes, and this information is not captured in the dataset.

Possibility of Data Incompleteness: It's essential to consider the possibility of missing or incomplete data in the dataset. Some relevant variables or details about specific campaigns may not be present, potentially impacting the accuracy and comprehensiveness of the analysis.

Addressing these limitations would enhance the dataset's utility for drawing more robust conclusions about crowdfunding dynamics and campaign success factors.

***What are some other possible tables and or graphs that we could create, and what additional value would they provide?***

Geographical Distribution Table/Map:

Table: Show the distribution of funded and unfunded projects by geographic region.

Value: Identify regions with high and low crowdfunding activity. This can inform marketing strategies and highlight areas with untapped potential.

Project Category Breakdown:

Graph: Plot the success rate of crowdfunding campaigns over different periods.

Value: Identify trends in crowdfunding success rates. This can help predict optimal times for launching campaigns and inform marketing strategies.

***Use your data to determine whether the mean or median better summarizes the data?***

Comparing the mean and median values for both successful and unsuccessful campaigns:

*Successful Campaigns:*

The mean (851) is substantially higher than the median (201).

The maximum value (7295) is significantly larger than the mean, indicating a right-skewed distribution.

*Unsuccessful Campaigns:*

The mean (586) is higher than the median (115).

The maximum value (6080) is larger than the mean, suggesting a right-skewed distribution.

Given the presence of right-skewed distributions with potentially influential high values, the median may be a more appropriate summary statistic for both successful and unsuccessful campaign backers. Therefore, for this dataset, the median could provide a more representative measure because the median is less sensitive to extreme values, which would give a more robust measure of central tendency.

***Use your data to determine if there is more variability with successful or unsuccessful campaigns. Does this make sense or why not?***

The data indicates a significant variability in the success of crowdfunding campaigns. Some campaigns have a relatively low number of backers but still achieve success, while others with a higher number of backers may fail. This suggests that the number of backers alone may not be the sole determinant of a campaign's success.

Notably, categories such as plays and rock demonstrate many successful campaigns, 187 and 49, respectively, suggesting a positive correlation between project category and success. In contrast, categories like metal and science fiction show fewer successful campaigns. The implication is that the type of project may influence the likelihood of success, implying that creators in specific categories may better understand their target audience or employ more effective campaign strategies.