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**1 Excel Homework – Written Answers**

1. The interpretation of the crowdfunding data offers the following insight:
   * Each category and sub-category experiences a different total number and percentage of success / failure.
   * Not only is there a greater number of fundraising requests (greater than 500) for film & video, music, and theater initiatives but they too enjoy a higher level of success (greater than 58%).
   * Fundraising requests for technology offerings are high with 600 initiatives, but their success depends on the dollar amount and focus area resulting in them only being successful 35% of the time.
   * Crowdfunding requests initiated by month tend to remain constant with exception of number of successful new requests starting over late summer months and in December.
   * Crowdfunding success is influenced on targeted, number of donors, time of year, and targeted amount.
   * Crowdfunding duration is another factor that impacts success / failure.
2. Limitations of the data set include:
   * Daily donation amount per day crowdfunding is active is not listed. Also, each backers donation amount would be insightful to understand ranges and distribution of each contributor.
   * Number of visitors per crowdfunding initiative / name. Understand why some people may be interested in an initiative yet do not donate and understand either success per visitor or success per donation.
   * Crowdfunding requests are only captured at national / country level but should allow for deeper geographical understanding.
   * Idea of targeted number of backers for a certain initiatives. Obviously larger goals need to have more backers with smaller dollar amounts or fewer backers with larger dollar amounts.
   * What makes a successful crowdfunding initiative?? Target amount + category / area of need + description and hopefully this results in people visiting the initiative and willing to make a donation.

1. Plots could include:
   * Bar charts by category and sub category showing target amount vs actual for success / failure scenarios.
   * Chart / table showing percent funded vs duration and dollar amount.
   * Chart showing fundraising goal vs duration and average donation size.
   * Distribution of fundraising goal vs duration for success / failure cases.
   * Chart showing number of backers and fundraising duration by category and or sub-category.
   * Understand success / failure distribution vs staff pick (true / false).
   * Understand success / failure distribution by country and dollar goal.
   * Number of category and sub-category by country.
   * A table showing crowdfunding evolution by year and country vs goal vs category / sub-category.

**Bonus Question**

For success cases, the mean is inflated by multiple number of campaigns that have more than 500 backers (143 of 2185 initiatives) resulting in the overall number being inflated. Since the distribution of the number of backers is so large and varied, it is better to go with a median calculation to understand the midpoint.

In the case of failures, the overall distribution of backers is narrower resulting in the mean and median being closer. However, because of the number of cases with “zero” backers (249 of 1277 cases) the median is lower than the mean. In this case it is better to go with the mean.

