Jeff Olson

Data Analytics and Visualization Bootcamp

Homework 1: Excel

The following Kickstarter data was analyzed for the purposes of this body of work.

Kickstarter raw data was evaluated by Parent Category, Sub Category, and start date in order to answer the questions regarding the outcome of startups in the data set supplied. The following tables and charts summarize the results.

**Table 1) Outcomes by Parent Category:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Country | (All) |  |  |  |  |
|  |  |  |  |  |  |
| **Count of state** | **Column Labels** |  |  |  |  |
| **Row Labels** | **canceled** | **Failed** | **Live** | **successful** | **Grand Total** |
| Theater | 37 | 493 | 24 | 839 | 1393 |
| Music | 20 | 120 | 20 | 540 | 700 |
| film & video | 40 | 180 |  | 300 | 520 |
| technology | 178 | 213 |  | 209 | 600 |
| photography |  | 117 |  | 103 | 220 |
| Games |  | 140 |  | 80 | 220 |
| publishing | 30 | 127 |  | 80 | 237 |
| Food | 20 | 140 | 6 | 34 | 200 |
| journalism | 24 |  |  |  | 24 |
| **Grand Total** | **349** | **1530** | **50** | **2185** | **4114** |

**Figure 1) Outcome by Parent Category Chart:**

**Table 2) Outcomes by Sub Category**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Category | (Multiple Items) |  |  |  |  |
|  |  |  |  |  |  |
| **Count of state** | **Column Labels** |  |  |  |  |
| **Row Labels** | **canceled** | **failed** | **live** | **successful** | **Grand Total** |
| Plays |  | 353 | 19 | 694 | 1066 |
| Rock |  |  |  | 260 | 260 |
| documentary |  |  |  | 180 | 180 |
| indie rock |  | 20 |  | 140 | 160 |
| hardware |  |  |  | 140 | 140 |
| photobooks |  | 57 |  | 103 | 160 |
| Spaces | 17 | 80 | 5 | 85 | 187 |
| tabletop games |  |  |  | 80 | 80 |
| television |  |  |  | 60 | 60 |
| Shorts |  |  |  | 60 | 60 |
| Musical | 20 | 60 |  | 60 | 140 |
| classical music |  |  |  | 40 | 40 |
| space exploration | 18 | 2 |  | 40 | 60 |
| electronic music |  |  |  | 40 | 40 |
| Pop |  |  |  | 40 | 40 |
| small batch |  |  | 6 | 34 | 40 |
| wearables | 60 | 120 |  | 20 | 200 |
| Metal |  |  |  | 20 | 20 |
| makerspaces |  | 11 |  | 9 | 20 |
| mobile games |  | 40 |  |  | 40 |
| Gadgets |  | 20 |  |  | 20 |
| science fiction | 40 |  |  |  | 40 |
| video games |  | 100 |  |  | 100 |
| Places |  | 20 |  |  | 20 |
| Drama |  | 80 |  |  | 80 |
| Faith |  | 40 | 20 |  | 60 |
| world music | 20 |  |  |  | 20 |
| Jazz |  | 60 |  |  | 60 |
| restaurants |  | 20 |  |  | 20 |
| food trucks | 20 | 120 |  |  | 140 |
| Web | 100 | 60 |  |  | 160 |
| Nature |  | 20 |  |  | 20 |
| animation |  | 100 |  |  | 100 |
| People |  | 20 |  |  | 20 |
| **Grand Total** | **295** | **1403** | **50** | **2105** | **3853** |

**Chart 2) Chart of Outcomes by sub category**

**Table 3) Table of Outcomes by start date**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Count of state** | **Column Labels** |  |  |  |
| **Row Labels** | **canceled** | **failed** | **successful** | **Grand Total** |
| Jan | 34 | 148 | 184 | 366 |
| Feb | 27 | 106 | 202 | 335 |
| Mar | 28 | 108 | 180 | 316 |
| Apr | 27 | 102 | 192 | 321 |
| May | 27 | 126 | 233 | 386 |
| Jun | 27 | 148 | 212 | 387 |
| Jul | 43 | 148 | 192 | 383 |
| Aug | 32 | 135 | 167 | 334 |
| Sep | 24 | 126 | 148 | 298 |
| Oct | 20 | 151 | 184 | 355 |
| Nov | 37 | 113 | 181 | 331 |
| Dec | 23 | 119 | 110 | 252 |
| **Grand Total** | **349** | **1530** | **2185** | **4064** |

**Chart 3) Chart of Incomes by Start Date**

**Table 4) Percentage of Outcomes Summary**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Goal** | **Number Successful** | **Number Failed** | **Number Canceled** | **Total Projects (not counting Live)** | **Percentage Successful** | **Percentage Failed** | **Percentage Canceled** |
| < 1000 | 322 | 113 | 18 | 453 | 71% | 25% | 4% |
| 1000 to 4999 | 931 | 420 | 60 | 1411 | 66% | 30% | 4% |
| 5000 to 9999 | 381 | 282 | 51 | 714 | 53% | 39% | 7% |
| 10000 to 14999 | 169 | 145 | 41 | 355 | 48% | 41% | 12% |
| 15000 to 19999 | 368 | 487 | 136 | 991 | 37% | 49% | 14% |
| 20000 to 24999 | 62 | 72 | 14 | 148 | 42% | 49% | 9% |
| 25000 to 29999 | 55 | 64 | 18 | 137 | 40% | 47% | 13% |
| 30000 to 34999 | 32 | 37 | 13 | 82 | 39% | 45% | 16% |
| 35000 to 39999 | 26 | 22 | 7 | 55 | 47% | 40% | 13% |
| 40000 to 44999 | 21 | 16 | 6 | 43 | 49% | 37% | 14% |
| 45000 to 49999 | 6 | 11 | 4 | 21 | 29% | 52% | 19% |
| >= 50000 | 55 | 198 | 83 | 336 | 16% | 59% | 25% |

**Chart 4) Chart of Outcome Percentage breakdown**

**What are three conclusions we can make about Kickstarter campaigns given the provided data?**

1. Kickstart campaign outcomes show that supporters appear to give different contributions at different times of the year. There are two downward trends, one in the 1st quarter, and another in the 4th quarter, additionally another dip at the end of the third quarter. The 1st quarter downward trend correlates to tax season, while the dip in contributions at the end of the third quarter may correlate with the education cycle beginning in the fall. Finally the trend shows November and December have reduced contributions to campaigns which may be due to the holiday season of Thanksgiving and Christmas.
2. The arts tend to be the most successful outcome.
3. Subcategories matter. In fact approximately 50% of those listed failed to meet the goal. So if your thinking of kicking of a project in these categories be warned. For example, Animation and Video Games for the time allotted in the data set have zero success. So A lot of effort to start a project may have been done but odds are very bad of a successful startup.

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

First, we do not know the incentives that have been offered. Secondly, the sample size on some of the start ups is relatively small so there may be more uncertainty there. And Lastly, we only know if they were successful in raising the funds but not if they were successful in the overall project.

**What are some other possible tables/graphs that we could create?**

One could look at a particular category by quarter and by year to see if there is any trend over time or by quarter for each sub category. This can tell a different story for the Parent category of Music. For example the data shows the best time for a kickstarter for faith music is after the Christmas holidays but before Easter season. Allowing one to make informed decisions on timing for fundraising.

Table 5) Table of Contributors by Category and Quarter

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Category and Sub-Category | (Multiple Items) |  |  |  |  |
|  |  |  |  |  |  |
| **Sum of backers\_count** | **Column Labels** |  |  |  |  |
| **Row Labels** | **Qtr1** | **Qtr2** | **Qtr3** | **Qtr4** | **Grand Total** |
| **music** | **14539** | **8668** | **11420** | **10418** | **45045** |
| rock | 6079 | 4324 | 6232 | 5258 | 21893 |
| indie rock | 3362 | 2846 | 2789 | 2326 | 11323 |
| electronic music | 2195 | 464 | 1073 | 1227 | 4959 |
| pop | 982 | 581 | 514 | 575 | 2652 |
| metal | 397 | 216 | 593 | 806 | 2012 |
| faith | 1341 | 52 | 35 | 15 | 1443 |
| jazz | 136 | 121 | 152 | 171 | 580 |
| world music | 47 | 64 | 32 | 40 | 183 |
| **Grand Total** | **14539** | **8668** | **11420** | **10418** | **45045** |

Chart 5) Count of Contributors by Category and Quarter