Words used for Future tense:

['will',

'may',

'can',

'would',

'could',

'should',

'Can',

'might',

'shall',

'Should',

'Will']

In real case there may some breviate words are also marked as future tense word such as ‘ll, ca. But The general number are correct.

The beginning campaigns numbers: **10139**

|  |  |  |
| --- | --- | --- |
| Step | Remove all campaigns with | How many campaigns removed |
| 1 | Campaign Duration <= 1 | 97 |
| 2 | Delete the lines where NPO is blank | 1987 |
| 3 | Word “ test” in title, or description. | 0 |
| 4 | Remove campaigns where actual donations =0 but distinct donors > 0 | 58 |
| 5 | Remove campaigns where  Number of campaigns from the same NPO that started within the same Year Month  =984  = 106 | 37 |
| 6 | Remove all active campaigns.  The last campaign should be as of END OCT 2022 | 612 |
| 7 | Remove 40,000, 56,000, 80,000, and 100,000 campaign custome amount | 8 |
| 8 | Remove outliers based on original Model 3 | 368 |

The left campaigns: **6972**

Based on Base model, I also add the Future tense percentage and Avg custom amount in data static for analysising, I can remove them if need

A screenshot of a graph

Description automatically generated with low confidence

A picture containing text, crossword puzzle, screenshot, diagram

Description automatically generated

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Mean | Std.Dev | Skew | Kurt |
| [1] | DV: Donation Amount | 11017 | 44290 | 18.77 | 515.56 |
| [2] | Campaign Goal | 43966 | 127877 | 8.15 | 93.6 |
| [3] | Tax Deductibility | 0.95 | 0.21 | -4.29 | 16.42 |
| [4] | Campaign Duration | 112 | 109 | 1.36 | 0.52 |
| [5] | Campaign Video | 0.346 | 0.476 | 0.64 | -1.58 |
| [6] | Number of images | 3 | 1.56 | -0.004 | -1.52 |
| [7] | Words of campaign | 138 | 67 | 0.023 | -1.04 |
| [8] | Campaign Polarity | 0.157 | 0.156 | 0.32 | 2.12 |
| [9] | Creator Type | 0.65 | 0.94 | 2.78 | 11.32 |
| [10] | Scale Type | 12428123 | 7366143 | -0.148 | -1.625 |
| [11] | Sector Type | 1.02 | 1.25 | 1.22 | 1.53 |
| [12] | Start Year | 2020 | 1.37 | -0.76 | -0.099 |
| [13] | Future tense percentage | 0.1 | 0.2 | 1.88 | 2.46 |
| [14] | Avg custom amount | 171 | 1094 | 19.37 | 481.44 |

Statistics

.

Statistics

Table1 correlation Matrix and descriptive statistics

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Mean | Std.Dev | Min | Max | [1] | [2] | [3] | [4] | [5] | [6] | [7] | [8] | [9] | [10] | [11] | [12] | [13] | [14] | [15] |
| [1] | DV: Donation Amount | 11017 | 44290 | 10 | 1602948 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| [2] | Campaign Goal | 43966 | 127877 | 100 | 2000000 | 0.57 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| [3] | Tax Deductibility | 0.95 | 0.21 | 0 | 1 | 0.02 | -0.05 | 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| [4] | Campaign Duration | 112 | 109 | 2 | 365 | 0.25 | 0.41 | -0.013 | 1 |  |  |  |  |  |  |  |  |  |  |  |
| [5] | Campaign Video | 0.346 | 0.476 | 0 | 1 | 0.051 | 0.041 | 0.0031 | 0.034 | 1 |  |  |  |  |  |  |  |  |  |  |
| [6] | Number of images | 3 | 1.56 | 0 | 5 | 0.069 | 0.069 | -0.025 | 0.069 | 0.039 | 1 |  |  |  |  |  |  |  |  |  |
| [7] | Words of campaign | 138 | 67 | 1 | 294 | 0.23 | 0.25 | -0.033 | 0.056 | 0.0089 | 0.12 | 1 |  |  |  |  |  |  |  |  |
| [8] | Campaign Polarity | 0.157 | 0.156 | -0.78 | 1 | -0.014 | -0.014 | -0.071 | -0.055 | -0.008 | 0.068 | 0.025 | 1 |  |  |  |  |  |  |  |
| [9] | Creator Type | 0.65 | 0.94 | 0 | 7 | -0.17 | -0.47 | 0.1 | -0.25 | 0.08 | -0.024 | -0.24 | -0.034 | 1 |  |  |  |  |  |  |
| [10] | Scale Type | 12428123 | 7366143 | 50000 | 20000000 | 0.097 | 0.019 | 0.31 | -0.035 | 0.032 | -0.007 | 0.023 | -0.008 | 0.12 | 1 |  |  |  |  |  |
| [11] | Sector Type | 1.02 | 1.25 | 0 | 7 | 0.022 | 0.1 | -0.04 | 0.042 | 0.0048 | -0.016 | 0.11 | 0.059 | -0.13 | 0.036 | 1 |  |  |  |  |
| [12] | Start Year | 2020 | 1.37 | 2017 | 2022 | -0.058 | -0.16 | -0.062 | -0.17 | -0.029 | -0.12 | -0.042 | -0.052 | 0.16 | -0.064 | -0.036 | 1 |  |  |  |
| [13] | Future tense percentage | 0.1 | 0.2 | 0 | 0.129 | 0.13 | 0.28 | -0.094 | 0.097 | -0.005 | 0.081 | 0.15 | 0.051 | -0.52 | -0.069 | 0.0008 | -0.077 | 1 |  |  |
| [14] | Avg custom amount | 171 | 1094 | 0 | 40000 | 0.25 | 0.55 | -0.12 | 0.24 | -0.053 | 0.038 | 0.25 | 0.035 | -0.86 | -0.11 | 0.12 | -0.12 | 0.53 | 1 |  |

VIF Test

The new regression result.

Without log transformation

Campaign\_Goal 1.0701402364900046

NPO\_Ipc\_Status\_For\_Tax\_Deductibility 1.1211580864905726

Campaign\_Duration 1.120286737161551

Campaign\_Video 1.0090535643933476

Campaign\_Image\_Number 1.0397322580199513

Number\_of\_words\_describing\_campaign 1.0594398816205717

Description\_Campaign\_polarity 1.0223028427927419

Creator\_Type 1.213911367169667

Scale\_type 1.1155857776639204

Sector\_type 1.031090613974238

Campaign\_Start\_Year 1.0719991061221352

Future\_tense\_percentage 1.1528335284631441

Base model

A screenshot of a computer

Description automatically generated

QQ Plot

A picture containing diagram, plot, line, design

Description automatically generated

A blue line with a red line

Description automatically generated with low confidence