Financial return of crowdfunding platforms: are funding trends and success rates changing in the Covid-19 era?

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Abstract: The online crowdfunding platforms have become the main way of nonprofits to raise funds during the COVID-19 pandemic, due to lockdown and social and physical distancing policies. One year after the beginning of the current global pandemic, this study applies quantitative methods for providing results on the evolution of the amounts donated for nonprofits' projects through an online crowdfunding platform, comparing the success rates of the campaigns during COVID-19 pandemic with financial results in the previous years. Moreover, this study focusses on the determinants of financial return of the campaigns, investigating the amount of funding goals and the text features used for describing the crowdfunding campaign. The findings open up further investigations on the financial strategy applied by nonprofits during crises.

Keywords: financial; crowdfunding; trends; COVID-19; text mining; Gofundme

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1. INTRODUCTION

Due to the COVID-19 pandemic, governments around the world implemented lockdown policies. Companies adopted teleworking and the level of mobility in cities have decreased to unprecedented levels. This made online platforms more efficient, considering that it has become quite common way to perform work, provide services, sale goods, contacting families, and community in general.

The level of services provided has decreased in all sectors, including in Social Economy. This sector experienced a decrease in their revenues (Deitrick *et al.*, 2020) but, in contrast, the number of families requiring assistance increased due to unemployment or other consequences of pandemic, such as family violence (Zhang, 2020). In order to face this challenge, nonprofits need to attract human resources and raise funds.

The online crowdfunding platforms become the main way of nonprofits to raise funds during the COVID-19 pandemic, due to lockdown and consequent social and physical distancing policies. Nowadays, organizations can opt to use several online fundraising and crowdfunding platforms, for instance, Gofundme, Indiegogo, Kickstarter, Fondly, or Facebook. Gofundme is a popular crowdfunding platform where individuals can launch a campaign for supporting a cause or organization.

Prior to COVID-19 pandemic, crowdfunding platforms proved to be a useful way to raise funds. Authors provided evidence of the determinants related to the success rate of the campaigns shared by these platforms, namely the image or text of the posts (Zhang, Lyu and Luo, 2020). But in this unprecedented pandemic scenario, the uncertainty of financial stability of families may have changed the focus of motives regarding donations, as well as the priorities of the donors. Particularly, their response can be seen as a way of responding to the failures of governments and support the financial challenges of families, communities and small businesses (Elmer, Ward-Kimola and Burton, 2021).

Thus, this study addresses the following research questions:

Research question 1: What are the success rates of the campaigns during COVID-19 pandemic, and how do they compare to the previous years?

Research question 2: Can we relate the financial return of the campaigns with the amount of funding goals?

Research question 3: Can we relate the financial return of the campaigns with the text features used for describing the crowdfunding campaign?

For responding to those questions, a random dataset from the Gofundme platform was collected. Both structured and unstructured data were analysed to provide insight on the questions raised. By investigating the amount of funding goals and the text features used for describing the crowdfunding campaign, this study's conclusions have the potential to open up further investigations regarding the financial strategy applied by nonprofits during the times of crises.

2. LITERATURE REVIEW

Online crowdfunding platforms are used by nonprofits as a channel to raise funds. Elmer (2021) recently conducted a case study in Gofundme crowdfunding platform concluding that campaigns focus both on international and local issues and goals, although the latter prevailed.

The post regarding the funding campaign has attributes, connected to the image or the text that represent the first contact between fundraiser and potential donors. In the pre-pandemic period, Zhang, Lyu, and Luo (2020) found that, in some cases, the success of the campaign was influenced by the campaign category, population, campaign description, image quality, or the face attributes.

The results disclosed by crowdfunding platforms provide data for assessment of the needs identified by society and the projects that are being supported. In this area, researchers were asked to provide evidence on the social issues that were being addressed or simply left aside (Barr, 2020).

Given the above, this study aims to contribute to knowledge regarding the use of crowdfunding platforms concerning raising funds for nonprofits, by assessing the success rate of fundraising campaigns during the time of crisis. Additionally, this study investigates whether the funding goal affected the success of the campaign. In order to respond to the research gap identified in non-profit literature by Barr (2020), this study applies text mining techniques for determining the social needs having been addressed during this crisis and for characterizing which of those were left behind by online donors.

3. METHODS

Data were collected from a single source: Gofundme official website. A scraping technique was used to collect information thas was publicly available with respect to i) the location of the project; ii) name of the fundraising campaign; iii) the name of the nonprofits beneficiary of the funds raised; iv) amount of the application; and v) the amount effectively raised.

Descriptive statistics was used to analyse the features of 480 different campaigns at the Gofundme website announced in February 2021, for supporting nonprofits in the United States of America (39) and United Kingdom (441). Pearson's correlation coefficient was also applied for testing if there is sufficient evidence to conclude that there is a significant linear relationship between the amount applied and the amount raised in the campaigns.

Finally, considering the significant amount of data collected, the analysis of the name given the fundraising campaign for responding to the third research question, computer-assisted text analysis was applied for extracting, organizing, and providing knowledge from this campaign feature (*i.e.*, the name). Text-mining techniques were previously used by the authors, in relation to the addressing of nonprofits' topics (Santos, Laureano and Moro, 2020).

4. RESULTS AND DISCUSSION

In this section, we first provided a characterization of the dataset and, then, results were analysed in accordance with the research questions.
The majority of the campaigns included in the dataset referred to nonprofits located in US (92%) – see Figure 1. California (101), New York (68), and Texas are the US States most represented in this sample.
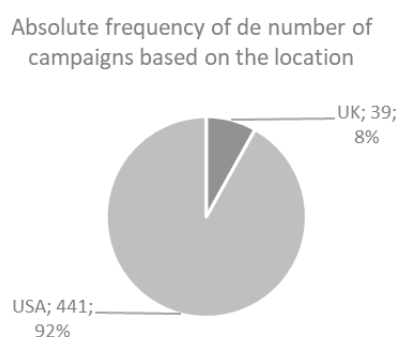

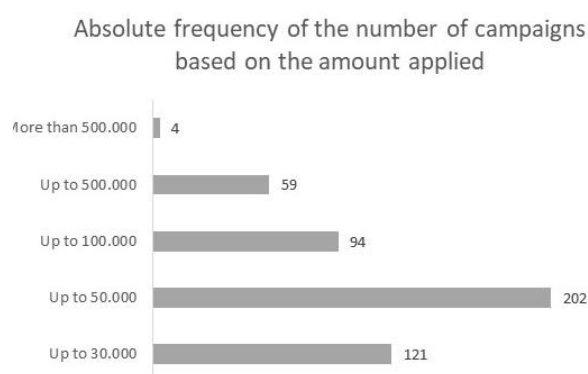Figure 1 - Absolute frequency of the number of campaigns based on the location

Figure 1 - Absolute frequency of the number campaigns based on the amount applied

The fundraising campaigns in the dataset request for amounts up to 500.000 monetary units. Generally, the nonprofits apply for up to 50.000 monetary units (223 campaigns).

Concerning the responses to the first research question, the absolute and relative frequency of the campaigns' success was computed. In case the amount raised equals or exceeds the amount applied, the campaign was characterized as successful, otherwise the label not successful was applied (Figure 3).
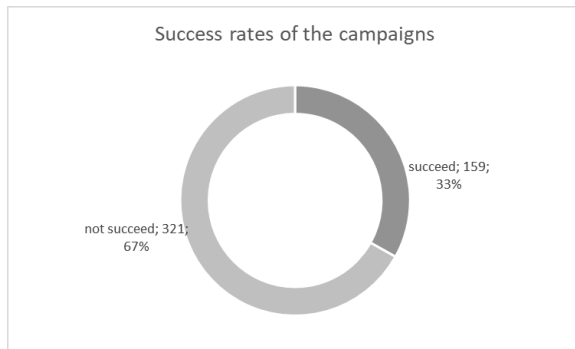
Figure 2 – Success rates of the campaigns
Source: autors calculation
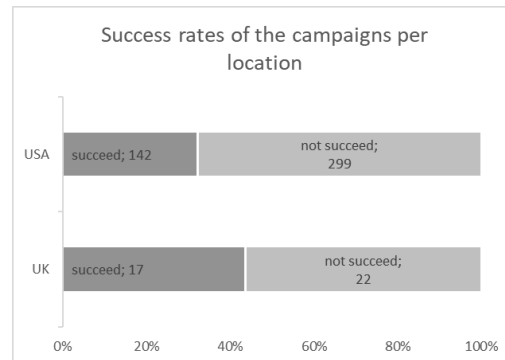
Figure 3 – Success rates of the campaigns per location
Source: autors calculation

The success rate of the Gofundme campaigns during the COVID-19 pandemic is 33%, meaning that 159 campaigns from the dataset collected the target amount. This success rate is higher in campaigns for nonprofits located in the UK, as shown in Figure 4.

Considering that studies conducted in pre-crisis period reported a success rate of fundraising campaigns around 50% (Zhang, Lyu and Luo, 2020), this study's results show that during the COVID-19 pandemic the success rate of crowdfunding campaigns for nonprofits decreased.

Regarding the second research question, both categories, i.e. amount applied and amount raised data series were analysed. Pearson's correlation coefficient was applied by taking into account that both data series are continuous variables. A strong positive linear correlation was found (Pearson's correlation coefficient of +0.754) at the 0.01 level. Figure 5 scopes the scatter plot for total sample, but provides three regression lines, in which the blue one refers only to fundraising campaigns in which the total amount applied was not raised. In this case, the correlation is still significant.
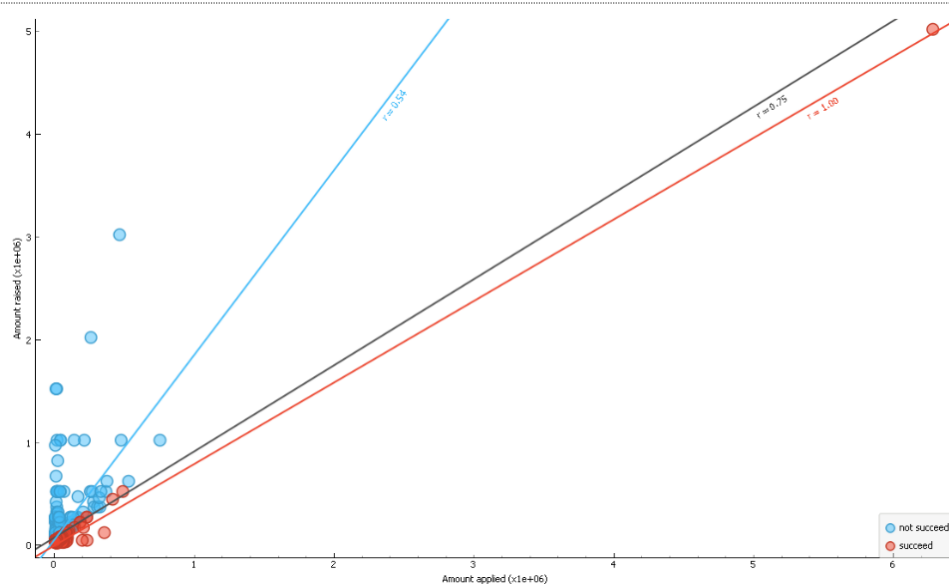
Figure 4. Scatter plot for the correlation between amount applied and amount raised, per fund goal succeeded or not succeeded.

Source: autors calculation

In Figure 6, different Pearson's correlation coefficients are shown in respect to data subsets related to the amount of funding goal (i.e., the amount applied): up to 30.000, up to 50.000, up to 100.000, up to 500.000, and more than 500.000.

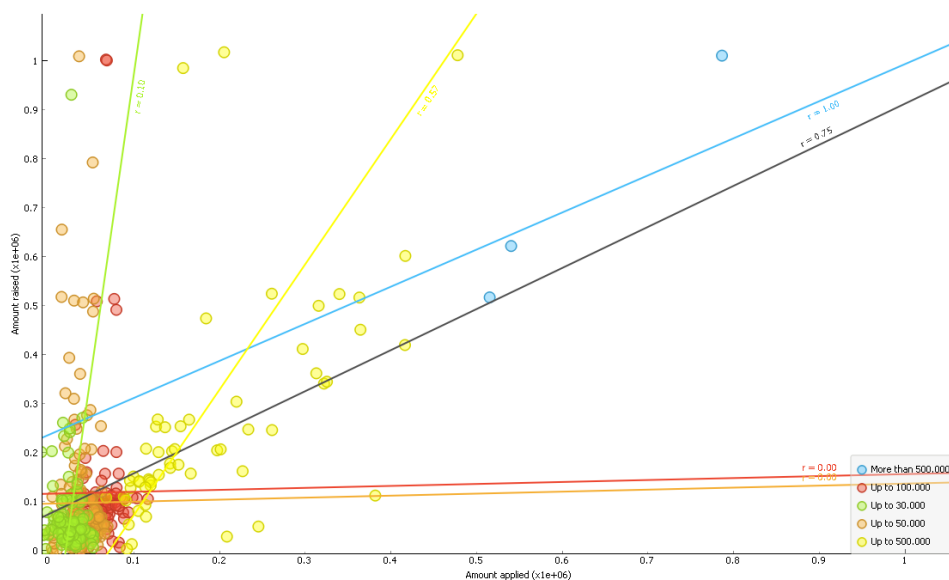*Figure 5. Scatter plot for the correlation between amount applied and amount raised, per amount of funds requested.*

Source: autors calculation

The regression lines and the Pearson coefficients provide scientific evidence that the amount applied and amount raised have a statistically significant linear relationship when campaigns apply for high

amounts (r=0.57 or r=1, p < .001). Considering that the direction of the relationship is positive, it means that these variables tend to increase together (i.e., greater amount applied is associated with greater amount raised). Based on these results, it can be concluded that campaigns advertising higher amounts of their funding goal can collect more funds.

And finally, the third question of research. In order to test the hypothesis of the text included in the name of the campaigns being related to the financial return of the campaigns, two groups of terms included in the campaign's name field were created. The first group included the campaign's name in which the target amount had been raised entirely, and the second group were the ones in which the funds raised had been lower than the goal set.

Figure 7 provides the word-cloud regarding the terms applied in the name of the campaign included in the first group (i.e., campaigns raising at least the amount requested). Next, Figure 8 provides the word-cloud regarding the second group (i.e., campaigns that did not succeed in raising the amount requested).

Figure 6 – Word-cloud of the most frequent terms in the name of the campaigns that <u>succeeded</u> in raising at least the amount requested
Source: authors calculation

Figure 7 – Word-cloud of the most frequent terms in the name of the campaigns that <u>did not succeed</u> in raising at least the amount requested
Source: authors calculation

Fundraising campaigns that succeeded in achieving the target amount are related to Black Lives Matter movement, and the 2020 Beirut disaster relief funds, considering that "Black" and "Beirut" are highly cited terms in the text of the campaigns. Fundraising campaigns that did not succeed related to animal and environmental causes, particularly with respect to projects promoting animal adoption or support indigenous communities in the Amazon, considering that the terms "animal", "adopt", and "Amazon" are cited several times. From this text analysis, it is also important to note that campaigns that succeeded frequently included in the name of the campaign the term "campaign" itself. Besides, the term "America" is not so frequently cited as in the campaigns that did not succeed.

5. FUTURE RESEARCH DIRECTIONS

To fully understand whether public funding campaigns are addressing social needs that are not being funded by companies or individuals in this crowdfunding campaigns, academic contributions need to analyse the scope and target of the current and future post-pandemic funding programs.

6. CONCLUSION

This study provides insights in the active fundraising campaigns related to some popular online crowdfunding platform. By characterizing the main features of non-profit campaigns during the crisis, academics should have sufficient knowledge on how to set and achieve the target amount, text of the campaign, or location that affects the success of the campaign. All listed factors severely influence the campaigns and their expected outcomes.

By separating successful and unsuccessful campaigns, the findings highlight the social needs that are not being addressed, or not being funded during this crisis. The results contribute for knowledge-based decisions for governments when establishing goals and criteria for funding programs for the non-profit sector. This is crucial for to ensure that no one is left behind.

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