

Maximising the Chances of Success in Reward Crowdfunding

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Abstract

Crowdfunding enables the funding of business and non-profit ideas by raising small amounts from a large number of people. In this paper, we analyse a dataset of more than 3,600 completed projects from Slovakia and the Czech Republic to identify the most critical determinants of funding success. While confirming the positive effect of the target amount, video introduction, and negative impact of grammatical errors, we have observed the social network page's mixed effects. What is more, we have identified a new determinant, the questions asked, with a negative impact on the funding process. The results also suggest a brief and precise description with a video introduction can help achieve the goal. On the local crowdfunding platform, art and community projects are preferred, while the results suggest geographical effect. This paper may also be interpreted as guidance for project creation to maximise the chances of successful funding.

1. Introduction

Crowdfunding represents one of the fastest-growing areas in recent years. According to Ziegler et al. (2020), the total volume raised in 2017 was USD 418 billion. This demand-driven project funding can fund all types of projects – including new ventures, cultural and social projects. The crowdfunding platform serves as an intermediary, where the founders publish the idea, and the funders can invest a small amount in the project in exchange for compensation. According to Belleflamme et al. (2014), this compensation represents the main distinguishing feature between crowdfunding subcategories - donor, reward, debt and equity-based crowdfunding. Ziegler et al. (2020) declare that investment types represented by debt and equity crowdfunding have a significant share in the market, especially in Asia. On the other hand, despite the low total volume, donor and reward-based crowdfunding have a large fan base, little attention from regulators and often the highest level of publicity. While donor crowdfunding remains primarily altruistic, the reward-based projects have universal application and are therefore the subject of this study.

The rapid growth of crowdfunding platforms was also observed in Slovakia and the Czech Republic, often accompanied by their termination in a short time.

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Regarding reward-based crowdfunding, the platform HitHit has become the most important in terms of size and the collected amount. There are almost 4,000 finished projects, while this platform's success rate seems to be higher than on international platforms, nearly 50% compared with 37% on the international Kickstarter platform. As Dushnitsky et al. (2016) and Štofa and Zoričák (2016) mentioned, empirical research focuses on global platforms, while small local platforms are overlooked. In this paper, we are studying the biggest reward-based crowdfunding platform in Slovakia and the Czech Republic.

We have analysed more than 3,600 unique projects obtained from the HitHit platform covering more than eight years to address these issues. Subsequently, we have conducted a comprehensive study of determinants, where we have identified and analysed the four main determinant categories: (i) idea-related, (ii) project-related, (iii) founders and funders-related and (iv) third-party attributes. Our main goal is to identify the determinants of funding success and subsequently create the base guidance for project founders. Therefore, only variables observable or adjustable at the beginning or during the project funding are analysed. This study aims to confirm other studies' results and find new determinants while exploring the local platform operating in Slovakia and the Czech Republic.

This paper is organised into three sections. First, the literature review is followed by describing the data and methodology used in this paper. The third section discusses this paper's results and their broader implications while targeting the founders' approach to improve the chances of successful project funding.

2. Literature Review

Research conducted so far has focused mainly on the reward-based crowdfunding data from the most developed countries and international platforms, the motives of the crowdfunders and founders. As mentioned in Dushnitsky et al. (2016), there are distinct national patterns in crowdfunding activity. Therefore, the platform's size and international scope can lead to different results than in the case of local platforms. Local platforms are emerging mainly in smaller countries, where language and legislation are barriers to reaching the global market. In this context, Sorenson and Stuart (2001) noted, the greater distance between investor and entrepreneur can lower the chance of funding by venture capital.

The idea is the most crucial part of the project. Crosetto and Regner (2014) noted that financial intermediaries could not effectively judge ideas. Therefore, direct interaction with end-users on the crowdfunding platform can provide both funding and constructive feedback. However, as Mollick (2014) explains, even projects with good ideas can fail, while projects with average or inferior ideas can be successful.

As a project's idea is not measurable, it is appropriate to focus on other characteristics that may increase the success probability. Based on the previous literature, Vimal Kumar et al. (2019) has identified these main categories of success determinants: project-related, creator-related, and third-party specific signals. We have slightly modified these categories and created the fourth category, the idea-related attributes, to emphasise that similar projects will have the same qualities of this group regardless of the creator. This division also allows distinguishing between characteristics regarding the credibility of the creator and the project quality.

2.1 Idea-Related Attributes

The first category concerns the idea while describing the project with measurable properties. We have identified multiple attributes in this category addressed by researchers. As one of the most important results, it should be mentioned the negative impact of the requested amount and project duration on the probability of success, observed by Cordova et al. (2015), Koch and Siering (2015), Mollick (2014) and others. The higher goal and time is, the less likely the project will succeed. However, even within our dataset, we can identify extreme values like Barefoot Bohemia Hemp Sneakers that have surpassed the relatively high goal several times. However, as Mollick (2014) stated, most projects are either highly unsuccessful or closely successful.

Mollick (2014) has also found a positive effect of geographical distance between founders and funders. However, given the online character of crowdfunding platforms, Agrawal et al. (2011) suggest a reduced spatial proximity role. Kumar et al. (2019) highlighted that the project's success is significantly affected by the project category. However, according to Chan et al. (2018), category effects can be low or even negligible. There are 18 categories in total on the Hithit platform, which have been simplified into four basic categories - Art, Community, Culture and Pre-Sale projects.

Buff and Alhadef (2013) state that the reward price can determine project funding and implementation success. In this context, Ellman and Hurkens (2019) emphasise the importance of an optimal distribution of rewards. A higher number of rewards will result in a higher chance of funding because consumers can find their optimal reward. Crosetto and Regner (2014) conclude that product pre-sales are chosen more often than other types of reward, while Mollick (2014) note, contributors are more likely to buy overpriced products. Due to this pre-sale effect, the positive impact of maximal reward price is expected. In addition to this, Shi and Guan (2016) state that the lower minimum investment is also beneficial, so successful funding chances are positively affected because a larger target audience will buy this item.

2.2 Project-Related Attributes

These attributes are related to the quality of the project application itself. While the idea may be similar, the quality of the project proposal can be very different.

Mollick (2014) has found out that project design has a significant impact on project success. There is broad consensus (Crosetto and Regner (2014), Belleflamme et al. (2014), Šoltés and Štofa (2016) and others) that video has a positive influence on the project funding. Similarly, De Larrea et al. (2019) state that the photos are an essential part of the project description because they can provide the most information.

Accurate description can also reduce the information asymmetry and therefore is essential for project success. Crosetto and Regner (2014) have found a positive influence of word count on a project's success. The longer description can be a sign of a well-described project, where the information asymmetry is reduced to a minimum. However, Moon and Hwang (2018) suggest that projects with a concise

description should be positively affected. The stylisation of the text itself can also influence potential funders to prefer well-written project description. Furthermore, Mollick (2014) talks about the negative influence of grammar errors on project success.

2.3 Founders and Funders-Related Attributes

De Larrea et al. (2019) pointed out that the level of information asymmetry in crowdfunding is higher than in other fields. The funders cannot carry out the due diligence to analyse the credibility of the project creator. Although business ideas represent only a fraction of all projects, refunds of any failed delivery are difficult to enforce. So perceived trust can be crucial in convincing funders to invest in the project.

Koch and Siering (2015) suggested a positive effect of previous experiences, but they could not confirm these assumptions. This effect was observed in Janků and Kučerová (2018) while being more significant in larger projects. However, Koch and Siering (2015) found a positive impact of the founder's number of previously supported projects.

The perceived trust and credibility can be positively affected by project status updates, identified by Cordova et al. (2015), de Larrea et al. (2019), Xu et al. (2014) and others. This news can also maintain project interest during the funding period. Similarly, founder comments can lower the information asymmetry of the project and positively affect funding outcome.

2.4 Third-Party Attributes

Social networks can positively affect perceived trust, lower information asymmetry, and provide easy marketing to start and keep funding momentum. What is more, they can give quick feedback on the project idea. According to Kaur and Gera (2017), Mollick (2014) and others, social networks' role has recently increased, and it significantly affects project success. Similarly, Kraus et al. (2016) highlight the positive effect of communication between founder and funders. As stated in Borst et al. (2018), the communication between founder and funders causes increasing latent ties funding. Sharing additional information in the form of own page, articles about the project and other media can also reduce information asymmetry and increase perceived trust. Müllerleile and Joenssen (2015) have confirmed this positive effect of having a website.

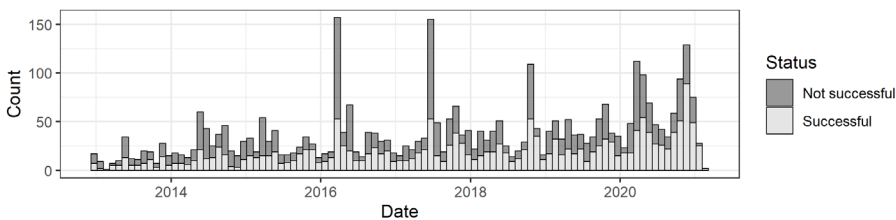
The funders' budget is limited, and therefore, they will choose to support only the best projects. This substitution effect was identified in Burtch et al. (2012) when analysing individual backers. In connection to the funder budget, the higher competitiveness on the crowdfunding platform may also lead to a lower success rate of the projects, which was identified even by Janků and Kučerová (2018) on the global platform Kickstarter. We assume that too many active projects in one month combined with a small target market may affect the project outcome. Concerning the funders activity over the year, the right timing also significantly impacts the project's success. Davies and Giovannetti (2018) suggested the existence of a seasonal effect, while Štofa and Zoričák (2016) have concluded that the end of the year is connected with a lower success rate.

3. Data and Methodology

This study is based on an analysis of the finished crowdfunding projects in Slovakia and the Czech Republic region. Data have been acquired from HitHit, the largest reward-based crowdfunding platform globally, with almost EUR 12 million donated to successful projects. The projects can be funded for a limited period of 30 or 45 days. Unfortunately, this information could not be extracted, but according to our analysis, the shorter duration is available only for previous years, and only a few projects favour this setting. This platform is based on the "all-or-nothing" principle, where only projects that meet the target amount being funded.

For this paper, we have created a dataset containing 3,694 finished projects with all freely available data for January 2013 - February 2021. This amount represents all approved and published projects throughout the lifetime of this site. As stated below in Figure 1, the number of active projects has increased, while peaks with a higher proportion of unsuccessful projects can also be observed.

Figure 1 The Development of Funding Success on HitHit



The dataset was enriched with social network information. Facebook was selected due to its popularity in the local area, where 2,525 projects referenced this social network. Borst et al. (2018) argue that Facebook, as a canal for social interaction, positively affects funding. Conversely, Twitter, as a social platform for opinion sharing, has reduced impact on project performance. Some Facebook links' privacy setting did not allow obtaining relevant data; therefore, the variable has been adjusted to capture all possible states. Thus, we have created a categorical variable, representing all possible statuses: no Facebook, private Facebook profile, and four categories divided by Facebook fans' quartiles on publicly available pages. Due to subsequent data cleaning, the quartile distribution of the Facebook variable in Table 2 is uneven.

The variables were extracted from the project webpage. We have examined the qualitative and quantitative nature of the project description using text-mining and created continuous, categorical, and binary variables. The direct predictors, such as the number of funders, the amount pledged, and per cent pledged, were not analysed. The final dataset contains a total of 26 variables. The list of analysed variables can be found in Table A1 in the Appendix.

In contrast to Mollick (2014), we have decided to use outlier detection based on quartiles and interquartile range. As the main variables with outlier problems have been identified: Goal, Pledged, Number of rewards, Updates and Questions, and so observations outside the range ($Q1 - 3 * IQR$, $Q3 + 3 * IQR$) were removed from the dataset. The resulting dataset contained 3,077 observations. Whereas the list of

analysed variables is too extensive, the descriptive statistics concerns significant variables only. These statistics are adjusted according to the variable type, while Table 1 is dedicated to continuous variables. Based on other studies, the logarithmization of the target amount has been used in the regression. Table 2 below shows the distribution of categorical variables. Even after cleaning the data, the success rate did not change and represented even 49.14%.

Table 1 Descriptive Statistics of Continuous Variables

<i>Variable</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Median</i>	<i>Min</i>	<i>Max</i>
<i>Updates</i>	3,077	2.13	2.84	1.00	0.00	15.00
<i>Questions</i>	3,077	0.37	0.81	0.00	0.00	3.00
<i>Goal</i>	3,077	4,046.36	2,903.07	3,022.00	191.00	17,215.00
<i>Rewards</i>	3,077	12.96	6.37	12.00	2.00	40.00
<i>MedianPledge</i>	3,077	32.68	29.05	25.82	1.00	780.18
<i>MaxPledge</i>	3,077	451.78	276.32	390.09	3.90	999.00
<i>WordsInText</i>	3,077	713.56	287.97	683.00	0.00	2292.00
<i>Experiences</i>	3,077	1.13	0.78	1.00	1.00	18.00
<i>Year</i>	3,077	2,017.27	2.26	2,017.00	2,013.00	2,021.00

Table 2 Descriptive Statistics of Categorical Variables

<i>Variable</i>	<i>N</i>	<i>Level</i>	<i>Frequency</i>	<i>Percent</i>
<i>Status</i>	3,077	0	1565	50.86
		1	1512	49.14
<i>Video</i>	3,077	FALSE	702	22.81
		TRUE	2375	77.19
<i>Location</i>	3,077	CZ	1430	46.47
		Other	793	25.77
		Praha	752	24.44
		SK	102	3.31
<i>Links</i>	3,077	FALSE	77	2.50
		TRUE	3000	97.50
<i>Mistakes</i>	3,077	FALSE	1961	95.61
		TRUE	90	4.39
		NF	1014	32.95
<i>FFans</i>	3,077	F	599	19.47
		1	376	12.22
		2	386	12.54
		3	382	12.41
		4	320	10.40
<i>Category</i>	3,077	Reward	351	12.20
		ArtReward	1717	59.68
		Community	603	20.96
		Representation	206	7.16

Contrary to Cordova et al. (2015) and Shi and Guan (2016), we have analysed variables recognisable or adjustable before and during the project funding.

Percentage funded was not examined due to the HitHit policy "all-or-nothing", where only projects that have reached the target amount are being funded. The dependent variable represented a final state of the project with two possible conditions: successfully and unsuccessfully funded. Therefore, logistic regression was used to calculate the project's predictors with stepwise forward selection, adopted from the previous empirical literature. Based on our selection of n variables, the appropriate logistic regression model is:

$$\text{where } P(\text{success} = 1|d) = \frac{e^d}{1+e^d} \text{ and } d = \beta_0 + \sum_{i=1}^n \beta_i \cdot x_i \quad (1)$$

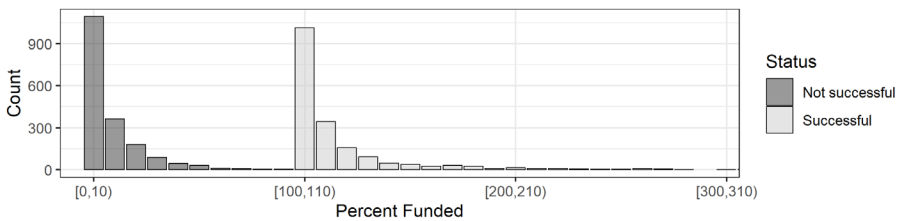
β_0 is intercept,
 β_i are regression coefficients,
 x_i are dependent variables.

Before the analysis, a series of preliminary tests were conducted. There should be no multicollinearity problems with data, and outliers were removed from the dataset. To check the robustness, the probit regression was carried out.

4. Results and Discussion

First of all, we can confirm Mollick (2014) results, where he claims, "failures happen by large amounts, successes by small amounts". However, the analysed dataset's success rate is approximately 49%, the successful projects collected on average 126% of their goal, while the unsuccessful projects only 12%. It can be seen in Figure 2, where per cent funded distribution is in both groups right-skewed. It also means when the projects exceed some threshold, they will likely reach the target.

Figure 2 Distributions of Percent Funded in Analysed Crowdfunding Projects



Secondly, the logit regression was performed. All variables from Tab. A1 were analysed, while the results can be found in Table 3. The forward stepwise regression allowed to retain only significant variables in the model, while all categories identified in the Literature review remains represented. To improve the logistic regression's informative value, odds ratios (OR) and average marginal effects (ME) were calculated. At the same time, McFadden R-squared was used to describe the quality of the model. Although its value remains relatively low, it is at a similar or higher level as in Borrero-Domínguez et al. (2020) and Mollick (2014), where no direct predictors have been used. On the other side, Robertson and Wooster (2015) and Shi and Guan (2016) have included direct predictors as backers count, money

raised on the first day and other unpredictable variables before the project's start, resulting in better prediction of the dependent variable.

Table 3 Results from Logit and Probit Regression

<i>Variable</i>	<i>Logit</i>		<i>OR</i>	<i>ME</i>	<i>Probit</i>	
<i>(Constant)</i>	-177.6390**	(70.0910)	0.0000	NA	-111.2670***	(41.4243)
<i>Updates</i>	0.3570***	(0.0260)	1.4290	0.0618	0.2033***	(0.0143)
<i>Questions</i>	-0.1370**	(0.0680)	0.8720	-0.0249	-0.0818**	(0.0400)
<i>LogGoal</i>	-1.0220***	(0.1160)	0.3599	-0.0001	-0.6098***	(0.0669)
<i>Rewards</i>	0.0740***	(0.0100)	1.0768	0.0135	0.0445***	(0.0060)
<i>VideoTRUE</i>	0.6070***	(0.1390)	1.8349	0.1119	0.3697***	(0.0816)
<i>LocationOther</i>	0.5400***	(0.1320)	1.7160	0.0977	0.3201***	(0.0781)
<i>LocationPrague</i>	0.3700***	(0.1310)	1.4477	0.0671	0.2209***	(0.0776)
<i>LocationSlovakia</i>	0.0730	(0.3160)	1.0757	0.0108	0.0361	(0.1880)
<i>MedianPledge</i>	-0.0050**	(0.0020)	0.9950	-0.0009	-0.0030**	(0.0013)
<i>MaxPledge</i>	0.0001*	(0.0001)	1.0000	0.0001	0.0002*	(0.0001)
<i>WordsInText</i>	-0.0010***	(0.0000)	0.9990	-0.0001	-0.0004***	(0.0001)
<i>LinksTRUE</i>	-0.9490***	(0.2970)	0.3871	-0.1693	-0.5576***	(0.1778)
<i>MistakesTRUE</i>	-0.6180**	(0.2710)	0.5390	-0.1098	-0.3718**	(0.1583)
<i>Experiences</i>	0.2840*	(0.1540)	1.3284	0.0321	0.1058	(0.0901)
<i>Year</i>	0.0910***	(0.0350)	1.0953	0.0173	0.0571***	(0.0206)
<i>FFansPrivate</i>	-0.0020	(0.1550)	0.9980	0.0021	0.0067	(0.0919)
<i>FFansQ1</i>	-0.5310***	(0.1810)	0.5880	-0.0911	-0.3066***	(0.1059)
<i>FFansQ2</i>	0.1660	(0.1790)	1.1806	0.0300	0.0971	(0.1065)
<i>FFansQ3</i>	0.4740***	(0.1780)	1.6064	0.0936	0.3000***	(0.1062)
<i>FFansQ4</i>	0.8860***	(0.1900)	2.4254	0.1694	0.5442***	(0.1129)
<i>CatArt</i>	0.4460**	(0.1790)	1.5621	0.0800	0.2645**	(0.1051)
<i>CatCommunity</i>	0.3730*	(0.2010)	1.4521	0.0681	0.2258*	(0.1180)
<i>CatCulture</i>	0.0760	(0.2490)	1.0790	0.0164	0.0554	(0.1464)
<i>N</i>	3,077			3,077		
<i>Pseudo R2</i>	0.2270			0.2256		

Notes: Standard errors in parenthesis. *** p < 0.01, ** p < 0.05, * p < 0.1.

4.1 Idea-Related Attributes

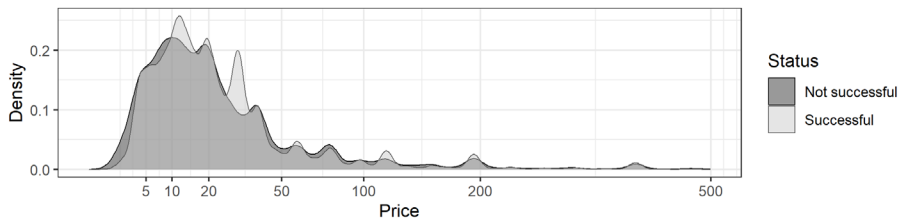
Consistently with our assumptions, we can confirm the results of Cordova et al. (2015), Koch and Siering (2015), Mollick (2014) and others, that the target amount has a significant effect on funding success. According to the results, the higher the money requirement is the lower the project's success. Therefore, it is in the founders' interest to determine as accurately as possible the amount they need and not overrate it, as this negatively affects their chances of success. On the other side, they should not underestimate necessary resources and thoroughly plan the project's needs. According to Mollick (2014), around 5% of projects fail to deliver, and 75% delivered with a delay.

When contributing to the project, the funders can choose from a list of rewards linked to different price levels. The optimal distribution of these rewards was analysed in terms of the number and distribution of reward prices, while both views showed significant results. Similarly to Müllerleile and Joenssen (2015) and Ellman

and Hurkens (2019), we have found that diversification of reward portfolio increases the chances of the funder's interest in the project. A more extensive portfolio means a higher chance that funders will find the gift they like. On the other side, Scheibehenne et al. (2010) talk about the negative effect of too many choices, which can lower the satisfaction of the chosen option, but this effect was not observed. Chen et al. (2016) similarly state the projects with just six different rewards has the highest chance of success. In this paper, the median value for successful campaigns is 14, and in unsuccessful campaigns, only 10, which contradicts these results.

Regarding the reward pricing, the median price decreases project success. We assume that most funders prefer the cheaper items when contributing, and so the founders should focus on a broader range of smaller rewards. However, as Lin et al. (2016) stated, the unsuccessful projects sold a much higher proportion of low price rewards, while successfully funded projects sold a significantly higher proportion of high price rewards. Similarly, the negative effect of minimal reward price was also indicated by Xu et al. (2014) and Zhang et al. (2017). As can be seen in Figure 3, we have observed similar results. However, the mentioned negative effect of low-priced rewards was observed only in the cheapest gifts. We recommend expanding the portfolio of rewards in the price range from EUR 10 to EUR 35, where we have observed a positive effect. In this way, founders can still participate in a given project at a relatively low cost, while the chances of funding success can increase significantly.

Figure 3 Distributions of Purchased Rewards Based on the Project Status



As shown in Table 3 and Figure 3, there is a significant impact of maximal reward price, resulting in a higher chance of funding success. Nevertheless, successful projects offered more expensive rewards and recorded higher sales of these rewards simultaneously. According to Belleflamme et al. (2014), the crowdfunders are willing to pay more for the product, which is influenced by altruism, premium feel and customer adoption patterns. On the other side, Chu et al. (2020) noted that crowdfunding products' higher price reduces social efficiency.

Regarding location, the projects situated in Prague have a higher chance to succeed than other projects in the Czech Republic, excluding the capital city. As Prague represents the largest city in the analysed region, this result suggests the geographic effect, where local funders will help fund the project, as presented in de Larrea et al. (2019). Approximately 8% of the region's population lives in Prague, but up to 29% of projects have focused on this location. We have also observed, the projects linked with foreign countries recorded an even higher positive effect, which can be a sign of national patriotism to promote homeland activities abroad.

Crosetto and Regner (2014) found that games and technology projects are correlated with success on Germany's largest crowdfunding platform. However, our results suggest that art and community projects tend to be successfully funded compared to technology and business projects. We assume that this result may be influenced by the platform's nature operating on the small market, where technologically demanding projects cannot find a sufficiently broad fan base.

4.2 Project-Related Attributes

We have assumed that a comprehensive description of the project measured by text characteristics and photos and video presence can positively affect the chance of funding success. Following the results of de Larrea et al. (2019), images are the most crucial part of the campaign, where they can provide more information than just regular text or even video. Similarly, Crosetto and Regner (2014), Mollick (2014) suggest a positive effect of image presence, but we cannot confirm these results. The projects' success rate with photos was only slightly higher than the success rate of projects without any media. However, when it comes to video, the odds of funding a project with a video presentation is 83% higher than without it. This effect is much more significant than in other studies as Mollick (2014). We assume the video is becoming a regular or even necessary part of the project proposal, which is supported by the fact that the ratio of projects without video was slowly decreasing, but in 2020 and 2021 the video availability is much lower due to the unavailability of services due to the coronavirus pandemic.

Regarding the text analysis, we have identified two significant predictors of project success. The first variable, WordsInText, has a slightly negative effect on project success. The longer text is, the lower the success probability the project has. Project description represents an essential part of the project proposal. Still, when text is too long, it may discourage the funder from reading the whole proposal, consistent with the Cumming et al. (2017). Furthermore, we need to emphasise that the projects with low or even zero descriptions also have very little chance of success and should be supplemented by other media. We have also confirmed the negative effect of grammar mistakes, which can be considered as a sign of low-quality arousing distrust in the project.

4.3 Founders and Funders-Related Attributes

We have confirmed the positive effect of project updates suggested by the literature. These updates notify about the status of project funding, re-stocking of sold-out items. All this information suggests a higher creator's involvement in project development and can build the project's credibility. Müllerleile and Joenssen (2015) have identified a very similar effect of project updates on Kickstarter, and according to Xu et al. (2014), this part is more important than project description. However, we have also found a negative influence of questions asked, although almost every question was answered. We assume that it is a consequence of the low quality of project description, where text vagueness leads to posting these questions. However, due to this variable's uniqueness, the results could not be verified by other studies and should be a subject of further research.

Project success was negatively influenced by other links in the project description, leading to news and sites related to the project. We initially assumed that this variable would increase the project's credibility and increase the funding success, as stated by Barbi and Mattioli (2019) and Liang et al. (2020). However, we have found a negative relationship that could be explained by the distraction effect, where after redirecting to another page, users rarely return to the original site. This result should also be a subject for further research as the number of observations without links was relatively low.

According to Yang and Hahn (2016), the founders can learn from their prior successful and even failed projects and thus increase the chances of funding their future projects' success. We have confirmed this effect, while the odds of successful funding are around 1.3 times greater for every finished project the founder has created. However, the significance of this variable was not confirmed by the probit regression on the level of 10%, and therefore this result should be a subject of further research.

4.4 Third-Party Attributes

Crowdfunding has recently become better known, which is also related to the higher number of contributors. Every year, the average number of funders increases, but on the contrary, the total number of projects also increases. According to our results, the latest projects have a higher chance to be successful. However, we have found no evidence of seasonal effect as presented in Štofa and Zoričák (2016) or crowding-out effect of too high competition on the platform suggested by Janků and Kučerová (2018).

We have identified a positive effect of Facebook page for projects with fans in the third and fourth quartile. Such projects have a greater reach with online communication and much higher perceived trust, which resulted in a higher chance of success. This result is consistent with Mollick (2014), who has identified the positive effect of fans' number on project success. On the other side, projects with a low number of supporters are even less successful than projects with no Facebook page, which can be caused by the impression of low quality or even possible scam. Facebook profiles with higher privacy settings and Facebook fans in Q2 have shown no significant effect on the funding success.

5. Conclusion

This study empirically explores the success determinants of crowdfunding projects in Slovakia and the Czech Republic, focusing on content analysis and social network marketing. Our study also contributes to the literature with division into determinant categories, a new approach to Facebook fans based on quartiles, and analysing new variable "Questions asked". The analysis of more than 3,000 projects has confirmed other studies' results and raised questions about new results. Given the "all or nothing" nature of these projects, all critical settings should be adjusted to maximise the probability of successful funding.

Firstly, project founders should consider all project aspects and precisely estimate the amount needed. The higher the target goal is, the higher the funding failure threatens. On the other side, underestimating funding can lead to the failure to

deliver the promised rewards, as suggested by the literature. Furthermore, the portfolio of rewards should be appropriately chosen. We recommend keeping the diversification higher to reach the broadest possible audience. To increase the chance of successful funding application, higher reward prices are recommended. As Mollick (2014) emphasises, the crowdfunders are willing to pay more for the products. Regarding cheaper rewards, it is appropriate to focus on a price level of at least EUR 10. This price still allows access to a broad audience while having a significant positive impact on success. The presence of cheaper rewards can lead to a substitution effect, where their purchase leads to a reduction of money raised.

Secondly, successful funding requires a good idea but also an appropriate presentation. Mistakes in project description and questions that arose harmed the chances of successful funding. Therefore, the project description should be shorter, precise, and proofread to maximise the success probability. Although we could not confirm the positive effect of photo documentation, the video introduction had a significant impact on funding success.

Thirdly, Facebook's influence as a tool for social interaction depends on the number of fans. While the positive effect is linked to popular pages, the low number of fans can even harm the funding success compared to no use of social networks. In the case of interaction with the crowd, we have confirmed the positive effects of project updates. However, the links to other pages turned out to be a disadvantage. This can be explained by the distraction effect, where possible funders do not return to the funding site after redirecting to another web page. On the other hand, maintaining an own website has no significant effect.

Finally, we have found that art and community projects are preferred, indicating the role of altruism on this platform. We assume the small target market can explain the lower success rate of business projects in Slovakia and the Czech Republic. Therefore an international platform with better visibility should be considered.

Nevertheless, the findings of this paper have to be seen in the light of some limitations. The projects were analysed only by quantitative metrics, while the project idea's quality cannot be directly evaluated. This study was carried out on a reward-based crowdfunding platform with a small target market, affecting the results' universality. However, this may point to differences between local and international platforms.

Despite these limitations, we offer valuable contributions to the discussion, but also raise new questions as potential subjects for further research, for example, the mixed effect of the Facebook page, the negative impacts of questions asked during the funding and the possible existence of a distraction effect due to the high number of links in the description.

APPENDIX

Table A1 Description of the Variables Used in the Analysis

<i>Variable and effect</i>	<i>Description</i>
Status	The dependent variable, indicating successful or unsuccessful funding.
<i>Idea-related attributes</i>	
Goal	- Target amount (EUR) requested by founder, later logarithmised and used as LogGoal.
Location	? Location of project implementation.
Category	? Project category on the crowdfunding platform simplified into Art, Community, Culture and Pre-Sale projects.
MinPledge	- The minimal amount (EUR) funder can donate to the project.
MaxPledge	+ The maximal amount (EUR) funder can donate to the project.
MedianPledge	+ The median amount (EUR) funder can donate to the project.
Rewards	+ The number of rewards that backers can choose.
<i>Project-related attributes</i>	
WordsInText	+ The number of words in the project description.
AvgWordLength	+ The average word length in the project description.
AvgSenLength	+ The average sentence length in the project description.
TitleLength	+ The length of the project title.
Mistakes	- The number of grammatical errors identified in the project description.
Video	+ A binary variable that represents whether a video is present in the description.
Photos	+ The number of photos in the project description.
<i>Founders and funders-related attributes</i>	
Updates	+ The number of news that the founders have published on the crowdfunding platform during the project.
Questions	+ The number of questions that arose during the project funding.
Year	+ The year when the project was published on the crowdfunding website.
Month	? The month when the project was published on the crowdfunding website.
Experience	+ The number of previous projects launched by the founder.
<i>Third-party attributes</i>	
OwnWebsite	+ A binary variable that represents whether the project itself has its domain.
FFans	+ The categorical variable, with 6 possible states – no Facebook page, a private Facebook page with no shared information, and public Facebook pages divided into another 4 categories depending on the number of fans
FComments	+ The Number of Facebook comments in the project description.
Links	+ The number of links in the project description.
MoneyCollected	- Money collected on the crowdfunding platform during the month of project publishing.
ActiveProjects	- The number of projects published on the crowdfunding platform during the month of project creation.

Notes : The expected effect is also indicated based on the literature, where "+" represents a positive effect, "-" negative effect and "?" indicates an unknown or mixed effect.

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