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## CROWDFUNDING CAMPAIGNS IN SMALL-SCALE ECONOMY AND DETERMINANTS OF THEIR SUCCESS

**Abstract:** *The article analyzes selected success factors of crowdfunding campaigns in Slovakia and the Czech Republic. As these countries are small in size with limited absorption capacity of crowdfunding markets, we assume that regional projects might be different as to the type, budget and area of implementation than those on international portals. The basic hypotheses are proposed, coming out from existing theories and previous results of research, tested by parametric tests. The methodology combines utilization of several methods – term frequency, trend analysis, quantitative and causal analysis. The results indicate that many projects are not providing important information about their idea (also in form of video spot, connection with social networks and own website), however, still quite large part of them is successful. The analysis also testifies that the most successful crowdfunding campaigns are those oriented on the blogs, travel, community, education and science*

**Keywords:** *Crowdfunding, campaigns, Budget, Success factors, Financing*

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## 1. Introduction

During the last decade the crowdfunding was presented as an innovative instrument in financing of human activities. We may argue that within the business segment it was implemented very hesitantly at the beginning (as the proper legislation, framework and infrastructure was missing), but the whole concept of funds collection was very successfully testified by politicians and charity organizations during the whole century. On the other hand, although the small and medium-sized enterprises are considered to be the backbone of each economy, in case of their establishment or further growth they struggle to access financial resources (Hussain et al, 2006; Boyles, 2011), so the potential crowdfunding

contribution is quite obvious.

Thus, the crowdfunding was offered as a certain remedy, although it turned out that not available for every business and not attractive for every crowd. Still, the area of its application is new (in business), the number of campaigns higher (more intensive competition) and the process of information dissemination upgraded (internet, social networks, applications) in comparison with the actions realized in the past. Hobbs et al. (2016) characterized it as a practice related to monetizing online networks. Crowd funding involves an open call, mostly through the Internet, for the provision of financial resources either in the form of donation or in exchange for the future product or some form of reward to support initiatives for specific purposes (Kleemann et al., 2008).

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## 2. Literature review

### 2.1. The definition of crowdfunding

In principle, the crowdfunding uses the proven mechanism of crowdsourcing but while the latter focuses generally on pooling of different sources (which an individual or a crowd may offer), the former pools together the specific factor of production – the capital (Harms, 2007).

Various authors characterize the crowdfunding in similar way pointing out the key attributes of this phenomenon as a crowd, backer, project, pledge and social media communication (Schwienbacher & Larralde, 2010; Lehner, 2013). Mollick (2014, p. 2) presents one of the most comprehensive approaches and defines the crowdfunding “as the efforts by entrepreneurial individuals and groups – cultural, social, and for-profit – to fund their ventures by drawing on relatively small contributions from a relatively large number of individuals using the internet, without standard financial intermediaries”.

The basic premise is that the small input of many is better than the large contribution of a few (Howe, 2009), while the number of backers is changeable. Although the relationship between the liquidity and profitability was not proven (Hiadlovský et al., 2016), necessary financial background is still the key assumption in preparation of company’s establishment, as well as its constant development. Small and medium-sized enterprises have difficulty accessing traditional funding options such as bank loans, venture capital, or angel investments (Lehner, 2013). In addition, it is often prohibitively expensive for young businesses to access wider traditional capital markets (Tunguz, 2013). These and other factors, such as the shortage of capital provoked by the global financial crisis and the growth in other forms of crowdsourcing, have contributed to the rise of the crowdfunding phenomenon in recent years (Giudici et al., 2013). Therefore, crowdfunding appears to be a viable source

for entrepreneurial seed capital, allowing entrepreneurs to raise the initial money required to start their new venture (Mollick, 2014).

However, the funding is not the only goal of a crowdfunding effort, even in an entrepreneurial context. As an example of other goals, crowdfunding has been used by founders to demonstrate demand for a proposed product, which can lead to funding from sources that are more traditional. Crowdfunding has also been used for marketing purposes, creating interest in new projects in the early stages of development. This has been especially important in industries where projects seek to create ecosystems of complimentary products (Mollick, 2014). Press attention also potentially follows crowdfunding campaigns, which can be beneficial to founders. Thus, crowdfunding, like other forms of venture finance (Ferrary & Granovetter, 2009), offers a potential set of resources that go beyond capital, which can be beneficial to founders (Mollick, 2014).

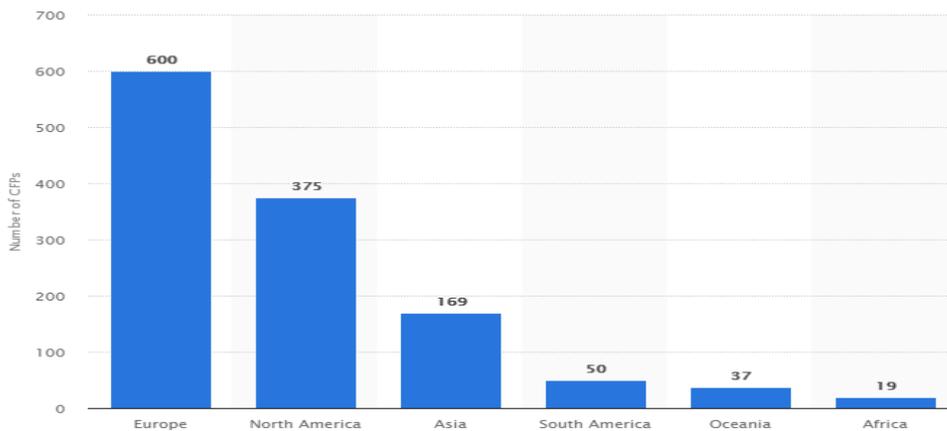
It is undisputed that the way, how a mass of people is mobilized (and organized), is predetermining the success of crowdfunding activities. The behavior of masses is the subject of studies of sociologists, psychologists and anthropologists for many decades, as organized crowds have always played an important role in human lives (Le Bon, 1996; Gilbert, 1989; Gilbert, 1996). Modern theories investigating the behavior of crowds highlighted the collective intelligence and troubleshooting possibilities (Wexler, 2011), including the use of social media and internet supported platforms (Bonnabeau, 2009; Rossiter, 2006).

The theory likes to point out that within the crowdfunding a business appeals to an anonymous crowd with the request to financially contribute and fill the missing part of budget, usually that crowd is quite well known at the beginning. At least it should be, as the family members and friends usually contribute as first, followed by the crowd the

business has prepared before or the crowd the business knows based on previous customer relations or public relations policy. Therefore, different levels of crowd have been identified (Crowdfunding Manifesto, 2011; Mollick, 2012) in the form of the First Degree (friends and family members), Second Degree (friends of friends) and Third Degree Network (strangers).

Although at the beginning there was a significant distinction between direct and indirect crowdfunding (Belleflamme et al, 2013), the complexity of social networks and their ability of quick response and sharing made it more comfortable to utilize the internet platforms rather than to seek direct contact with the individuals. Crowdfunding platform helps to manage all the collections

and gives a central location to share innovative ideas, including the materials and videos that explain what a project is trying to accomplish (Deckers, 2018). According to Massolution (2012) there were about 450 online crowdfunding platforms in that time, while at the end of 2014 the number tripled (Number of crowdfunding platforms worldwide, 2018). On the other hand, the smaller is the economy, the more complicated it is to fill the budget, so the competition pressure may bring the number of platforms down (as will be mentioned later). Or small economy crowdfunding projects are predestined to focus on actions will lower budgets rather than to support radical innovations. The share of all regions from the point of view of platforms is presented in Figure 1.



**Figure 1.** The number of crowdfunding platforms as of 2014 (by region) (Number of crowdfunding platforms worldwide, 2016)

Literature describes four basic types of crowdfunding, including investment (equity), lending-based (debt), reward-based and donation-based type that were described with more or less similar variations by various authors (Hobbs et al., 2016; Meyskens & Bird, 2015). Such a typology is important in case of researches focused on campaign's success or input-output comparison (input meant as a motivation to back a project and output meant as a reward gained). The most recognized model is the one based on rewards

(Belleflamme et al., 2014) in two partial forms - crowd sponsoring (initiator and sponsor agree on a defined reward the initiator is expected to honor) and crowd pre-selling (promised reward is the delivery of an early version of the product). The donation model classifies backers of projects as philanthropists who do not expect a direct return for their donations (Mollick, 2014). Another type of crowdfunding that exists but does not offer such a tangible reward is the debt model. This crowdfunding model tends

to be used as a way to fill institutional voids where traditional financial institutions do not operate and offers alternative financial aid rather than as a direct way to raise capital (Allison et al., 2013). The least common version of crowdfunding is the equity model, where investors become shareholders in these ventures in the hopes of receiving dividends (Mollick, 2014).

## 2.2. Determinants of success in crowdfunding campaigns

A business can hardly expect that every campaign will be successful (because of motivation of backers, size of budget, competition between projects, etc.). The success rate differs by country (31 % in US, UK and Canada) (Clifford, 2016) or by the

subject (19,58 % technology, 21,87 % journalism, 23,69 % crafts, 40,66 % art, 50,06 % music, 62,66 % dance) (Kickstarter Stats, 2016). Moreover, previous analysis of 50 000 campaigns from the portal Kickstarter have proved that non-profit projects receive more money per funding provider and that they are more likely to reach their minimum funding goals. On the other hand, these projects have also fewer funding providers and obtain lower total funding amounts (Pitschner & Pitschner-Finn, 2014).

As the Figure 2 indicates, also the frequency of projects in some fields is several times higher than the frequency in others, e.g. artistic campaigns including film, arts, design and music industry prevail.

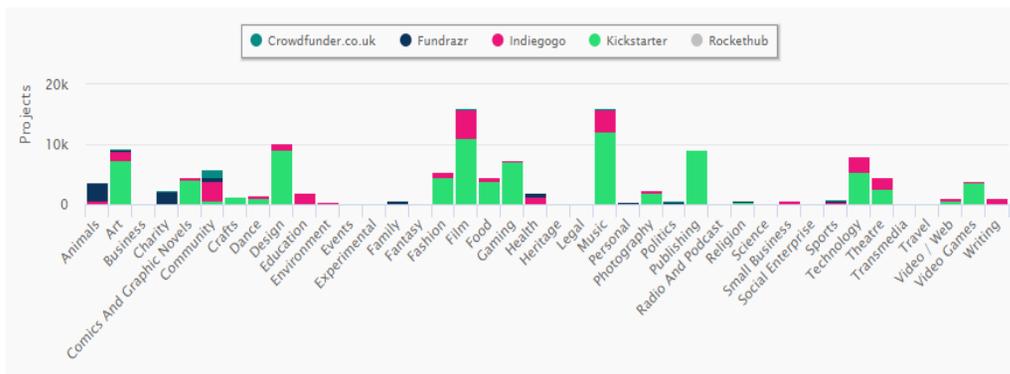


Figure 2. Fully funded projects by platform (n.d.)

Many authors (Mitra & Gilbert, 2014; Hobbs et al., 2016) examined success factors. The techniques in their research differed from predictive analytics, text mining up to a correlation analysis, with focus given to campaign's preparation or backers' approach. Although previous backing behavior offered crucial information for the estimation of project's probable development (including discrimination analysis), the shopping mentality, backers' previous experience influence or their value estimation may change the game a bit (Gerber et al., 2012). Hobbs et al. (2016) generally grouped the success criteria into the category of "network

management" and "campaign management", while they totally examined 26 factors. Existing crowdfunding literature therefore focusses on and argues for the importance of social networks and their management. Thus, in crowdfunding the engagement of a "community" is seen as vital, although details about the form of engagement remain unelaborated (Mollick, 2012). Labovitz (2010) and Kuppuswamy and Bayus (2013) stated that campaigns providing more updates may also raise greater sums of money and updates are seen as an important part of campaign management. Chen et al. (2009) further agreed that the preparedness of

entrepreneurs can positively influence funding decisions by presenting higher impressions of quality. Alongside preparedness the “passion” helps to potential investors to gain a more positive impression. Moreover, Belleflamme et al. (2013) highlighted the exchange nature of crowdfunding. Rather than a “free” donation, the practice usually involves making specific offers of goods and services in addition to the project offered in return for funds.

Within the other researches made before, several factors have been emphasized as well. Cardon et al. (2009) suggested that expertise and track records are important as they help to develop the trust. Kuppuswamy and Bayus (2018) stressed the updates during the campaign. Mollick (2014) found out that spelling errors reduced chances by 13 % and missing video by 26 %, while Frydrych et al. (2014) linked success to a coherent reward structure. In this research it is supposed that the factors of crowdfunding project’s success differ according to its type, so such hypothesis is considered, including the specifics the smaller economy may suffer from. Previous researches in Slovakia were focused primarily on activities on existing platforms (Vinczeová, 2015). Šoltés and Štofa (2016) described prevailing typology of both crowdfunding platforms and projects, including distribution of projects over different categories (success, duration). Other sources mentioned crowdfunding in Slovakia rather from its future perspectives and in combination or comparison with other

countries. They were usually initiated by the European Commission and associations of start-ups or venture capital investors and thus they focused on mapping of its current situation and its potential in financing of corporate development.

Central European countries are considered to be small in size, their markets have limited absorption capacity, including crowdfunding markets, that’s why more innovative players or large-budget ideas need to hunt for funds in abroad. Domestic platforms focus rather on regional projects, which might be different as to the type, budget and area of implementation than those on international portals. In 2016 there were about 12 reward and donor based crowdfunding portals in Slovakia and the Czech Republic (Šoltés & Štofa, 2016), since then the number went down a bit, as the couple of platforms ceased their existence because of very low traffic among both backers and projects’ initiators.

Anyway, as there exists very low language barrier, both countries may share projects without some obvious restraints (although it may be interesting to understand, whether backers are patriotic in case of projects’ selection or they consider the place of projects’ realization). Below (Table 1) is the brief review of platforms from both countries according to their recognition by Facebook or Google, which was later utilized for the purposes of the most known portals identification and further for the selection of projects.

**Table 1.** Selected crowdfunding platforms in Slovakia and the Czech Republic (Own processing)

Portal	Country	FB page’s likes	Google’s results
Startlab.sk	SK	1 328	17 000
Startovac.cz	CZ	11 435	71 200
Hithit.com	CZ	19 954	124 000
Nakopni.me	CZ	421	2 910
Ludialudom.sk	SK	23 336	51 600
Dobrakrajina.sk	SK	5 506	11 800
Dakujeme.sk	SK	4 240	24 600
Peněždroj.cz	CZ	1 285	765

The regulation of crowdfunding markets in Slovakia is not clearly elaborated and directly focused. Various acts necessarily govern the issue of financing but no one specifically sets principles and rules for financial flows from crowd. In case of equity crowdfunding the Act No. 566/2001 Coll., on Securities and Investment Services implements several obligations for issuers, mainly the conditions of getting a license and several procedural conditions. Lending type of crowdfunding regulation is given by the nature of involved parties, thus the civil code (private entity) or commercial code is applied (business entity), both without specific details. Donations are a subject to a public collections act (Act No. 162/2014 Coll.), but are considered only in the meaning of their publicly beneficial character (European Crowdfunding Network, 2017). Some of the above mentioned acts directly implemented the directives of EU (AIFMD Directive, UCITS Directive, MiFID II, PSD, etc.) that were implemented with basically similar rules also in the Czech Republic (Corporations act, Capital markets act, Banking act, etc.) and there were implemented also other regulations during the last decade that more or less influenced the crowdfunding popularity or availability (like implementation of simple joint stock company, state support, tax regulation) which go beyond the scope of this paper.

The paper is focused on the behavior of backers and initiators during the campaigns' realization on the most populated platforms in Slovakia and the Czech Republic, as the successful and unsuccessful projects will be analyzed and the factors determining potential success will be examined.

### 3. Methodology

The main aim of the paper is to analyze the success factors of crowdfunding campaigns in Slovakia and the Czech Republic. Coming out from the theory and previously made researches, we set following research hypotheses:

**H1:** There is a dependence between collected amount of money in the half-time of campaign and the overall success of the campaign (project).

**H2:** The business projects (campaigns) have higher number of backers and higher average contribution than the charity projects.

**H3:** The business projects (campaigns) have higher rate of success than other types of projects.

The projects were chosen within the same period at the beginning of 2018, thus minimizing the potential seasonality in demand. Eight portals (from Table 1) were discussed when the projects were identified, but as the peněždroj.cz seemed to be inactive for a while, just projects from remaining 7 portals were included. Totally, the analysis considered 53 projects for the selected period. As the partial aim was focused on the development of the campaign over the time, only those projects were selected, which started within the same week, so the time span between their start was about 5 to 7 days. No other criteria for their selection were applied.

The project's campaign was analyzed from different points of view. All the factors that were under the supervision, were grouped into several categories – campaign specification and marketing (type, duration, function, differentiation from competition, project's web content, visualization of the product/problem), crowd identification and measurement (offered solution, presence on social networks, fans, followers and likes count), crowd motivation and interaction (reward policy and its differentiation, contribution policy and its adequacy, availability) and campaign outcomes (development of contributions over the time, development of backers over the time, campaign's updating, success rate, campaign's cancelation, term frequency development, crowd size development). If the project's campaign collected required (targeted) amount of funds, we considered the project to be successful.

The specifics of our research consist in the analysis of crowdfunding campaigns in the small size economy, where the group of potential backers is limited by the size of population, language and similar culture (habits), as well as in the comparison of business (for-profit) and charity (non-profit) projects. As we analyzed the portals in small countries, we were able to cover the majority of the business (reward based) and charity (donation based) projects running in selected period.

During the analysis, the following methods were used. Term frequency was used in order to find out how the word spreads over, for which the internet was browsed via Google to see how known each project became during its realization. Trend analysis covered both the knowledge about the project (terms, fans, followers) and the project's financial (number of backers, collected sum) and marketing aspects (interaction with backers). Quantitative analysis on crowdfunding platforms (project and backers focus) was used in case of project's time development depiction, including overall success elaboration. The causal analysis was applied on success/failure rate testing when its determinants were discussed and identified,

which was completed through the correlation analysis. Hypotheses were tested through the Student's t-Test and Pearson's Chi-square Test for independence. As a supportive test was used the Levene's test for equality of variances.

## 4. Findings

### 4.1. Identification of the research sample

Our study was aimed at analyzing the success factors of crowdfunding campaigns in Slovakia and the Czech Republic. The findings are divided into two parts: the descriptive analysis of selected sample and the hypotheses testing.

Before analyzing the selected sample of crowdfunding campaigns, the success rate of crowdfunding projects on the portal Startlab.sk was processed (Table 2). As it is shown in the Table 2, the technology (business) projects were 100 % successfully backed. The second category of projects with the 71.43 % success rate was the literature, design and fashion. The least successful type of projects was sport with only 30 % success rate.

**Table 2.** The success rate of crowdfunding projects on the portal Startlab.sk (Own processing)

Type of project	Total number of projects	Number of successful projects	% of success
Movie and photography	16	6	37.5 %
Education and science	44	28	63.64 %
Community	67	41	61.19 %
Technology	6	6	100.00 %
Music and dance	20	8	40.00 %
Art and theatre	23	12	52.17 %
Literature	35	25	71.43 %
Sport	10	3	30.00 %
Design and fashion	7	5	71.43 %
Total	228	134	58.77 %

Findings from the pilot research on Startlab.sk were used for the classification of basic types of crowdfunding campaigns and

formulation of the hypothesis 3 and partially also in the hypotheses 1 and 2. In empirical research we decided just for 4 major

categories of crowdfunding projects (Charity, Art, Business, Other projects), because more detail classification of crowdfunding campaigns would be useless with respect to formulated hypotheses and during the analyzed period there was not enough ongoing projects in all 9 categories.

The analysis of the crowdfunding campaigns took into consideration 53 active projects on seven existing Slovak and Czech crowdfunding portals. The sample was

formed from 21 charity projects, 16 art projects, 7 business projects and 9 projects from other areas (e. g. science and education projects, community and others). These projects were supported by overall 123 689 € from 3 887 backers. The largest sum was dedicated to the charity projects (31.16 %) and art projects (30.79 %). Next figure (Figure 3) presents detailed identification of the sample according to the type of the campaign and its primary function.

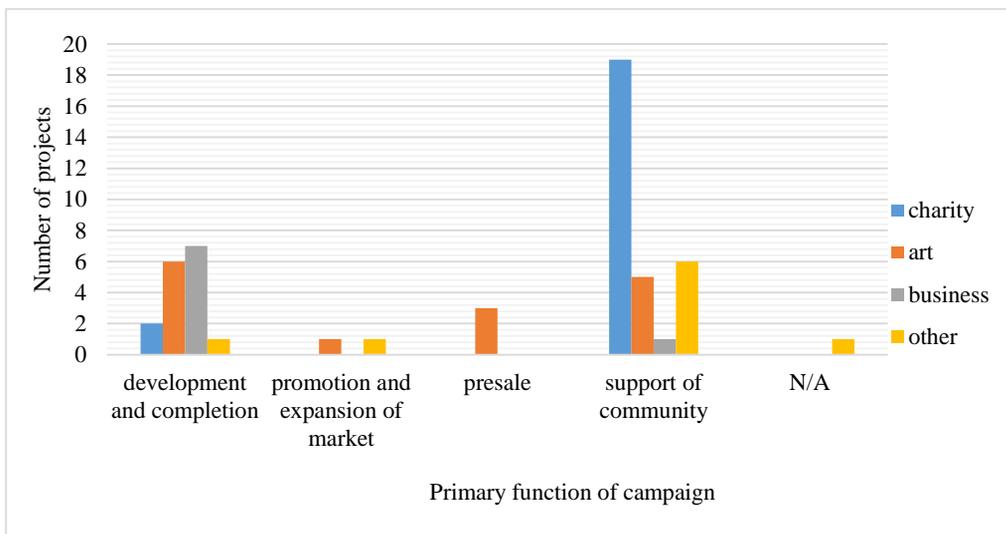
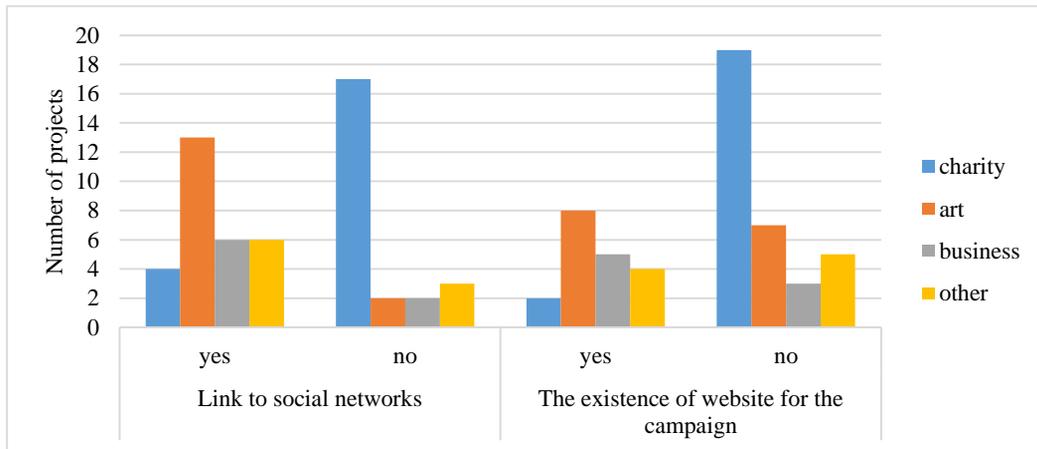


Figure 3. Identification of the analyzed projects (Own processing)

#### 4.2. Analysis of the success factors of crowdfunding campaigns

As the existing literature identifies that success factors of crowdfunding campaigns differ according to their type, next part will identify selected success factors of the analyzed crowdfunding campaigns. “Network management” emphasizes the importance of social networks and their management for the crowdfunding projects. Social networks are considered as the main way how to transit the idea and information about the campaign. Moreover, website of campaign also serves as the additional and very important source of information for the crowd. Research has also proved that missing

video spot reduces chances for campaign’s success. Almost 55 % from the total number of analyzed projects connected the campaign with social networks, on the other hand, the website was created in less than 36 % of the projects. From the total number of analyzed projects the video spot was created in only 55 % of projects – there is a significant difference between charity projects and projects from other groups, from the total number of charity projects only 19 % had video spot, the share of art projects was 80 %, business projects 75 % and in other projects 78 %. Figure 4 presents detailed analysis of the utilized “network management” according to the type of projects.



**Figure 4.** Utilization of “network management” for crowdfunding campaigns (Own processing)

The management of the crowdfunding campaigns considering time and commitment is also a key to crowdfunding success. Firstly, it is necessary to keep updates that are an important part of campaign management. However, the results of the research have

confirmed that only 16 out of 53 projects have continuously informed the backers about the process of the campaign. The Table 3 summarizes whether particular types of projects were updating the information during campaign.

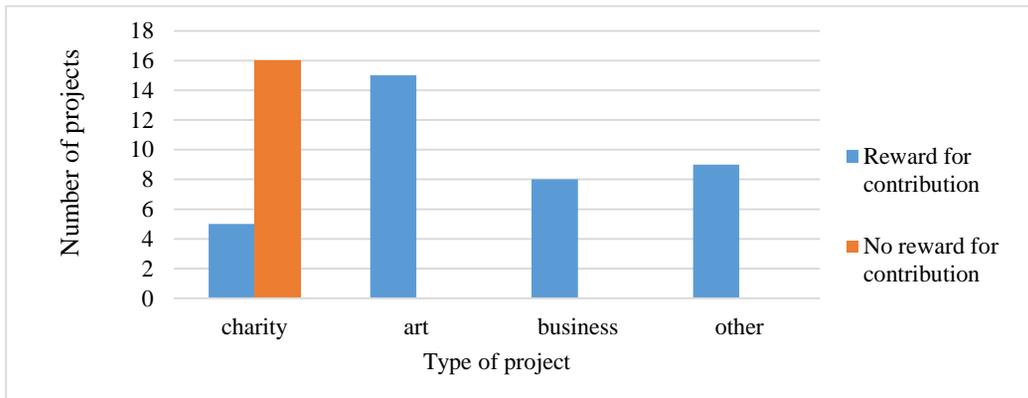
**Table 3.** Updating campaign of crowdfunding projects (Own processing)

Type of project / Update during campaign	yes		no		total
	total	%	total	%	
Charity	3	14.29 %	18	85.71 %	21
Art	5	33.33 %	10	66.67 %	15
Business	5	62.50 %	3	37.50 %	8
Other	3	33.33 %	6	66.67 %	9
Total	16	30.19 %	37	69.81 %	53

According to the results of the research the highest level of updating was among the group of business projects (62.5 %), comparable lower level was achieved in the group of art projects (33.33 %) and other projects (33.33 %).

The chance of project to succeed can be also increased by supporting the campaign with proper reward management (called also rewards in exchange for contributions, offer in return for funds or exchange nature of

crowdfunding) and this type of crowdfunding model is also the most recognized. As state Frydrych et al. (2014), there is a link between the project success and a coherent reward structure. Also, Belleflamme et al. (2013) highlight the exchange nature of crowdfunding and Gerber et al. (2012) state that backers are discerning when it comes to judgements of rewards in crowdfunding activity. The Figure 5 shows the distribution of rewards for contribution (i.e. exchange nature) within our selected projects.



**Figure 5.** The reward for contribution (exchange nature – offer in return for funds) (Own processing)

The results of analysis show that majority of the charity projects were not offering anything in return for funds (16 out of 21 charity projects, representing 71 % of campaigns). The art, business and other projects were using rewards for contribution (from smaller rewards for the masses through wide range of rewards to high reward for top

backers).

In the next part of our analysis, the successful crowdfunding campaigns are described and hypotheses tested. The Table 4 displays the success rate of 53 analyzed crowdfunding campaigns.

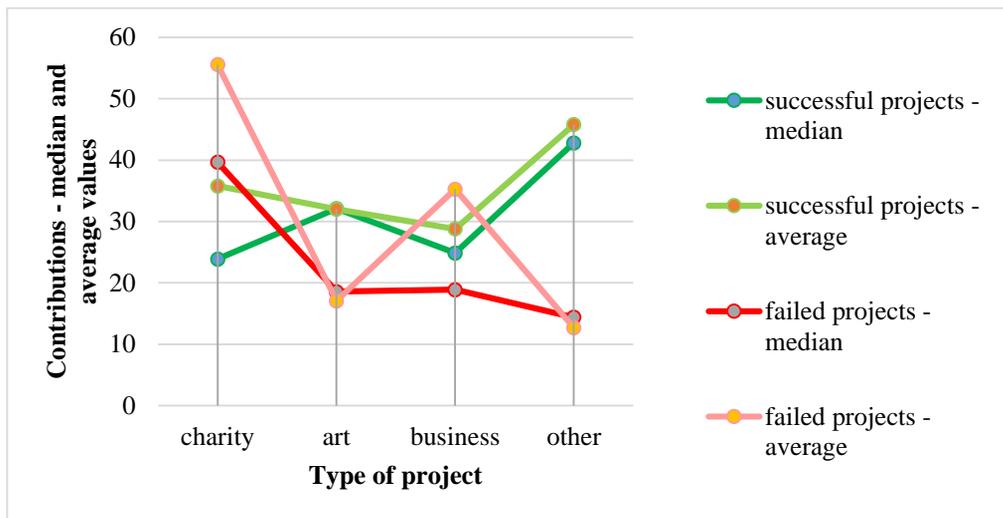
**Table 4.** Successful crowdfunding campaigns(Own processing)

Type of project	Total number of projects	Number of successful projects	% of success	Collected amount in successful projects (€)	% of collected amount in successful projects from total amount
Charity	21	7	33.33 %	29 309	76.04 %
Art	15	8	53.33 %	35 681	93.69 %
Business	8	5	62.5 %	22 322	82.26 %
Other	9	6	66.67 %	19 633	98.55 %
Total	53	26	49.06 %	106 945	86.46 %

The most successful crowdfunding campaigns were the projects from the group “other” (e. g. blogs and travel, community, education and science) with the success rate of 66.67 %. The charity projects were the least successfully backed (with only 33.33 % success rate). The overall rate of success for our sample of 53 campaigns was 49.06 %, which means that almost half of the projects was not completely backed and classified as failed (unsuccessful). From the total amount 123 688 € collected for all projects (both

successful and unsuccessful) the successful projects obtained almost 87 %, however, the rates varied between categories.

When analyzing the crowdfunding campaigns in more detail, the median and average values of the sample were calculated. We sorted the campaigns into the categories such as charity, art, business and other and took into consideration the successfulness of the project. The Figure 6 displays the median and average contributions for successful and failed projects.



**Figure 6.** Median and average of contributions of crowdfunding campaigns (Own processing)

As it is shown in this figure, the median of the contributions for the successful projects was highest for the other projects (42.79 €) and the lowest for the charity projects (23.86 €). Considering the average values, the highest average contribution was also in the category of other projects (45.79 €) and the lowest in the business projects (28.78 €). In the category of failed projects, the median value was highest for the charity projects (39.64 €) and the lowest for other projects (14.38 €). These results were also obtained in the average contributions, however, due to the wide range of contributions in particular projects, the average contributions in the category of charity projects (55.55 €) and also business projects (35.26 €) were significantly higher compared with median value.

**4.3. Verification of the hypotheses**

Hypothesis testing is a way to test the results of a research to see if the results are meaningful. Basically, it is testing of the results whether they are valid by figuring out the odds that they have happened by chance. We have set three hypotheses related to crowdfunding campaigns in small-scale economy. The results of hypotheses testing are presented in the following paragraphs.

Hypothesis 1: We assume that there is a dependence between collected amount of money at the half-time of campaign and the final success of the project. We expected that the higher is the interest for the project at the beginning of campaign, the higher is the chance for overall success. We tested this assumption by comparing the amount of funds or the half-time of the campaign (expressed as a percentage of the total amount of funds required) with the result of the campaign (success / failure). We used for testing the Pearson’s Chi-square Test for Independence to see if there is a statistically significant dependence between the amount of funds collected in the first half of the campaign and the result of the campaign (success). The observed data for testing this assumption was as follows (Table 5).

**Table 5.** Pearson's Chi-square Test for Independence (Own processing)

Half-time amount of funds	Final result of campaign		
	Success	Failure	Total
below 50 %	6	26	32
over 50 %	20	1	21
Total	26	27	53

By using the Chi-square Test we computed the value 5.09007E-08. When comparing the result with the significance level 0.05, we can conclude that there was statistically significant relation between the sum of funds at the half-time of the campaign and the final success of the project.

Hypothesis 2: We assume that business projects (campaigns) have higher number of backers and higher average contribution than charity projects. We tested the hypothesis 2 on the sample of business and charity projects. We came out from the thesis that business projects are more popular with more solvent backers. We chose the test of the means of two samples (business and charity projects), while we tested the match of mean number of backers and also the match of mean amount of contribution to the projects. Both assumptions were tested separately.

The first assumption of the mean number of contributors' equality was tested by the Student's t-test for two independent means assuming equal variances (equality of variances was confirmed by the Levene's test). Null hypothesis was the equality of the mean numbers of backers for both types of projects. Alternate hypothesis was the mean number of backers for business projects was higher than by the charity projects. The result of Student's t-test was following (Table 6).

**Table 6.** Student's t-test results – The number of backers (Own processing)

	Business projects	Charity projects
Mean	123.75	64.09
Variance	15787.07	13014.99
Observations	8	21
Df	27	
t Stat	1.23	
P(T<=t) one-tail	0.116	
t Critical one-tail	1.70	

At the significance level 0.05, we rejected the alternate hypothesis and we can conclude that

there was not a statistically significant difference between the numbers of backers for selected types of crowdfunding projects.

The second assumption of equality of the mean contributions was tested by the Student's t-test for two independent means assuming unequal variances (inequality of variances was confirmed by the Levene's test). Null hypothesis was the equality of mean value of contributions for business and charity projects. Alternate hypothesis was the mean contribution for business projects was higher than for the charity projects. The result of Student's t-test is shown below (Table 7).

**Table 7.** Student's t-test results – The mean contribution for projects (Own processing)

	Business projects	Charity projects
Mean	31.22	48.97
Variance	537.85	2253.55
Observations	8	21
Df	27	
t Stat	-1.34	
P(T<=t) one-tail	0.096	
t Critical one-tail	1.70	

At the significance level 0.05, we rejected the alternate hypothesis and we can conclude that there is not a statistically significant difference between the mean contribution of business and charity projects.

Hypothesis 3: We assume that business campaigns (project) have higher rate of success than other types of projects. According to the pilot research, we expected that backers prefer more to support business than charity and art projects. We tested the hypothesis so that we considered the project to be successful if it was supported by contributions worth 100 percent or more of the target budget at the end of the campaign. The hypothesis was tested by the Student's t-test for two independent means (means of success rates of two groups of projects).

Null hypothesis assumes that there was no difference between the means of two populations (business projects and other types of projects). Alternate hypothesis assumes that the mean value of business projects' success was higher than the mean value of other projects' success. Both populations had equal variances (equality of variances was confirmed by the Levene's test). The result of Students t-test was following (Table 8).

**Table 8.** Student's t-test results – The success rate of projects (Own processing)

	Business projects	Other projects
Mean	93.13	74.73
Variance	5748.13	5677.70
Observations	8	45
Df	51	
t Stat	0.64	
P(T<=t) one-tail	0.263	
t Critical one-tail	1.68	

According the t Stat value (0.64) and right-sided t Critical one-tail value (1.68), we can state that alternate hypothesis was rejected. It means that we cannot confirm that business projects had higher success rate than other projects in population.

## 5. Conclusion

Although it was presumed that breakthrough ideas of the domestic start-ups (existing ones or potentially planned) are rather realized in abroad (due to lower domestic market potential, planned international market penetration, required budget and amount of financial support), as the Czech and Slovak markets are too small, we were not able to fully confirm this statement. Research proved that business oriented projects were not as numerous as the charity ones, but there existed no significant differences in their success rate or the size of financial contributions. Although the results confirmed

the findings of previous authors mentioning growing popularity of crowdfunding (number of projects, growth of crowd), we found that number of platforms went down, mainly in Slovakia. We combine this fact with the small economy effect (crowd limits) and with rather intensive competition from the Czech Republic (Czech platforms are quite easily accessible for Slovak crowd). Almost no language barrier and similar target segments (customers, public) made it easier to attract the attention of backers. We fully confirmed the results gained by Šoltés and Štofa identifying the most popular types in both countries. While in the Czech Republic the reward-based model overwhelms, donor-based model prevails in Slovakia. Besides, it should be stated that many projects just pretend to be some kind of business type, unless many of their aspects hide the personal motivation of initiator (or theoretical the platforms itself just vaguely separates these types).

Whereas the number of crowdfunding platforms was lowered or some of them seem to be inactive for a while (lower interest is offered as one of the reasons), the crowd is still more populated. On the other hand, the quality of the projects and campaigns varies a lot. It seems that the platforms accepted projects without some restraints (it indicates potentially low competition among the projects), some projects are obviously misleading backers (the campaign ends later than the money is needed according to a described project schedule) or they are solving personal needs, private goals or desires of the initiators (private trips, adrenaline adventures, etc.). Very low number of projects was describing the benefits for the backers (or society) or specifying the purpose for which the money would be used. One of the crucial findings was the fact that certain ideas would never be supported by any traditional or venture investor, as the necessary details about the project's realization and sustainability were missing. But it was found that in spite of that they were successful, which made us to

conclude that there is a great difference between investor's point of view and the behavior of the crowd (layman's point of view).

Although the part of the population scruples to support someone's else business or just to support the charity, there still exists quite an important group of people willing to do this (because of fun, philanthropy, excitement, etc.). Thus many times the financial reasons may be denied and certain part of the theories mentioning that the campaigns first of all have to appeal to a backer (20 % of successful projects had no video, 17 % were not linked to social networks). On the other hand, we may conclude that the prepared crowd helped to overcome above mentioned missing factors, although within the small markets the „fatigue of backers“ may be significantly more intensive.

The research was influenced by certain limitations. The number of platforms was lower, as the total number is generally low. Certain charity-oriented platforms were not added to ensure partial comparability between the types of projects. Another limitation was created by examined platforms. As there exists almost no pre-selection of projects, supposedly all

submitted ideas and projects were openly presented on the selected platforms. Thus, the total success/failure of campaigns was influenced by the existence of “zero contribution” campaigns in the sample. As the research was realized in limited time (short-term), it was not possible to analyze the seasonality in number of projects and size of active crowd.

The research outcomes offered quite important incentives and questions for the future research. First, the motivation of projects' initiators is quite unknown. It is just our next assumption that there exists a group of people only taking the chance and having fun when fundraising. Secondly, it is quite important to reveal the potential seasonality in demand (initiated projects) and offer (crowd preparedness or fatigue during the year). Finally, it would be beneficial to examine the experience of both successful and unsuccessful companies and to comprehend the steps taken after the project was realized. It is very important to understand how they utilized the knowledge later, in terms of potential campaign's, product's (or service) or platform's changes, for example even in case of international expansion.

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