# Success Determinants of Crowdfunding Projects\*

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**Abstract.** Estimation of social network's *willingness to help* is a key factor in decision making, when setting up a crowdfunding (CF) campaign. This study seeks to identify the effect of past experience on social engagement attitude, such as commitment to participate in crowdfunding activities. We explore impact of differences in investor's utilities from participating in crowdfunding, related to investor's beliefs, behavioral patterns and background such as entrepreneurial experience and motivation to attempt (assumed or factual), attitude to gambling, career preferences and some other. In addition to self-reported survey data (N = 120), we analyze the magnitude of the most commonly used project performance metrics in campaign's success: project's goal, project's subject, geographical location, duration of a campaign, number of backers and amount funded (N = 1000). Data is obtained from KickStarter.com server. Our findings suggest that participation grows from previous interactions with crowdfunding, other experience is insignificant. Common performance metrics have impact on campaign's success, though our findings propose two of them insignificant, namely duration and location. Given previous findings state duration as important determinant of success and lack of data on estimating *willingness to help*, findings carry implications on estimating success determinants of CF projects.

**Аннотация.** При планировании краудфандинговой кампании одним из ключевых факторов является так называемая оценка стартапером «*готовности прийти на помощь*» ("*willingness to help*") тех людей, которые являются его «*друзьями*» в социальных сетях, иначе говоря его «социальная сеть» ("*social network*"). Целью данного исследования является выявление, влияет ли прошлый опыт и вовлеченность в социальные сети на дальнейшее участие предполагаемого инвестора/основателя кампании в краудфандинге. Исследуя различные поведенческие паттерны инвестора/стартапера посредством опроса (отношение к азартным играм, карьерные предпочтения, мотивация участвовать в краудфандинге), мы делаем вывод о том, какую роль играют вышеперечисленные факторы при выборе человека, участвовать или нет в краудфандинговой кампании. В дополнение к данным от опроса (N = 120) мы анализируем наиболее часто используемые показатели эффективности проекта: цели проекта, тема проекта, фактическое географическое местоположение, продолжительность кампании, количество сторонников и объема привлеченных средств (N = 1000). Данные были получены с сервера KickStarter.com.

Наши результаты показывают, что потенциальное участие человека в качестве инвестора/основателя кампании складывается из наличия предыдущего опыта в краудфандинге, другие факторы не так важны. Общие показатели эффективности имеют влияние на успех кампании, хотя наши результаты предлагают незначительную составляющую двух из них, а именно продолжительность кампании и географическое месторасположение. Учитывая то, что в предыдущих исследованиях продолжительность кампании расценивается как важный фактор, определяющий успех, а также отсутствие данных по оценке «готовности прийти на помощь», результаты исследования вносят вклад в существующее понимание составляющих успеха краудфандинговых проектов.

**Key words:** Crowdfunding, social circle, start-up, fundraising, entrepreneurship.

# INTRODUCTION

In the last few years a new form of investment has attracted interest of increasing number of initiatives

and firms: crowdfunding. In crowdfunding people pool their money together, in order to invest in and support efforts initiated by other people or organizations. It is the system to finance a project or a firm by

<sup>\*</sup> Определяющие факторы успеха краудфандинговых проектов.

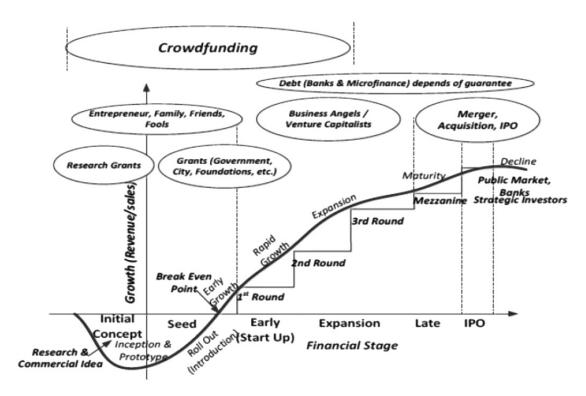


Figure 1.

Source: International Journal of Financial Research.

a group of people instead of professional parties like banks or venture capitalists, allowing individuals to fund entrepreneurs directly even with small amounts. There are about 500 crowdfunding platforms differing in type of fundraising, among them charity, preorder, equity and lending.

This article studies factors influencing the success of crowdfunding campaigns. We attempt to explore differences in investor's utilities from participating in crowdfunding, related to investor's beliefs, behavioral patterns and background. Study provides insights for proper estimation willingness to support entrepreneur's 1-tier social circles, which evidentially play key role in boosting project's economic capital.

Assuming that propensity to engage in social ventures is driven by past experience, we interviewed people on different issues, such as: entrepreneurial experience, career preferences, attitude to traditional sources of finance, gambling experience, motivation to support or create new ventures, etc.

Further, we provide updates on the effect of the most acknowledgeable campaign performance metrics on project's success. A project is considered successful if the declared threshold (i. e. goal) was met by or before the deadline, whereas failed in opposite. Such parameters as project's goal, project's subject and location, duration of a campaign, number of backers and amount raised, stated to influence success, according to the majority of studies. Our findings propose two of them insignificant, namely duration and location.

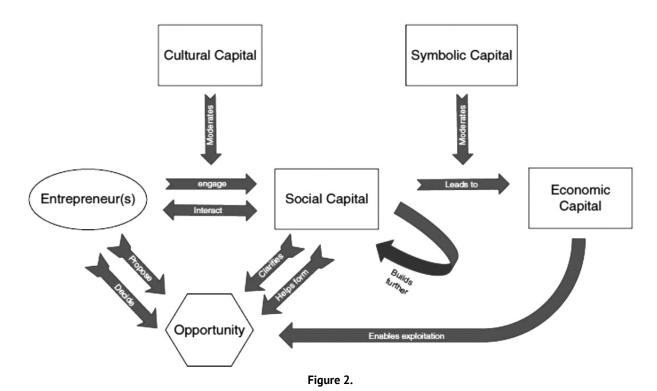
#### LITERATURE REVIEW

Crowdfunding seems an ideal match for entrepreneurs seeking for 'societal' value more than for economic gain. While the entrepreneurs act as catalysts, members of the crowd take over various roles at the same time, from co-founders to funders as well as to customers and co-workers. To enable this collaborative opportunity development, the entrepreneurs (1) need to improve their Culture Capital (CC) in the form of a careful comportment of the languages and values; (2) be prepared to actively work on building Symbolic Capital (SYMC), for example by emphasizing the societal benefit (legitimacy) of their ideas and by providing respectful interaction with the crowd. When this happens, Social Capital (SC) is actually transformed into *Economic Capital (EC)* — small monetary contributions of all kinds can sum up to build enough resources to boldly address social needs (Lehner M., 2014).

#### **OPPORTUNITY**

There are three main issues to develop "Opportunity": 1) Understand — estimate network support size and their *willingness to participate*; choose appropriate platform; 2) Activate — ask network influencers, ask people likely to support; 3) Expand — connect through structural holes, build reputation.

Many crowdfunding project creators have trouble estimating their network size and who is willing to



Source: Entrepreneurship & Regional Development: An International Journal.

give, which is leading them to choose overly ambitious funding goals or spam connections. Entrepreneur should clearly understand general motivations that will drive people to back his future project, choosing platform type accordingly. Donation and reward-based platforms (charity and pre-order) typically are used when the founder aims to get initial capital using emotionally attached fan crowd. Such fans are driven by empathy towards the project. Equity or lending crowdfunding are likely to attract crowd, driven by project's future financial profits.

Declaring a "non-for-profit" status of a project may positively affect the success chances of entrepreneurs to reach their capital targets (Belleflamme, Lambert, Schwienbacher, 2013). Pitcher (2014) provides evidence that non-profit projects are significantly more likely to reach their minimum funding goals. At the same time, however, they have fewer funding givers and obtain lower total funding amounts.

Having appropriate non-financial motivation, heading the project is essential for charity. Building campaign on some basic value, generally accepted by society, may sound like a good strategy. There is evidence from Jian and Shin (2015), showing that belief in freedom of content, altruism, and contributing to communities emerged as the strongest self-reported motivations (highly valued by donors themselves). But, in contrast, fun, family and friends (FF) motivations were the only positive predictors for actual donation levels. Fun appears to be a clear predictor of

donation levels, when FF drives only the number of donations, but not the amount. FF is also a less important motivator for returning donors than it is for the first-timers.

Also, people tend to back activities linked with their personal day-to-day problems, such as health-related causes. There are studies, showing that non-profits, reflecting immediate needs or benefits are more likely to succeed (Saxton G., Wang, L.)

When thinking to start a charity project, entrepreneur should account the future price of giving for his campaign (the amount a donor needs to give in order to provide one dollar of the charity's output). While most (but not all) of the authors across the different strands of the literature agree that the price of giving affects charitable giving, the estimated magnitudes vary widely, and many approaches struggle to cleanly identify these effects. For example, a charity that spends a large share of its revenue on fundraising will have a relatively high price of giving — potentially reducing donations - yet those same fundraising expenditures may attract more and larger donations. Price of giving tends to fall into three broad groups: the role of administrative and fundraising costs; the role of tax preferences; and the role of direct subsidies to giving. Meer (2013) states that price of giving affects the likelihood of achieving the funding goal, but not whether the project receives any donors. Thus, a ten percent increase in the price of giving reduces the likelihood of funding by about 3.6 percentage points. Effect of the price of giving is expanding in competitive environment, as donors obtain possibility to compare projects and shift their giving towards more efficient ones.

#### **SOCIAL CAPITAL (SC)**

A lot of authors (Mollick, Dresner, Meece) provide evidence that successful campaigns typically start with raising 30% of funds from well-known individuals (friends and family). Colombo, Franzoni, Rossi-Lamastra and Lehner, suggest that in addition to relying on social contacts established *outside* a crowdfunding platform (e. g., family and friends, Facebook or LinkedIn contacts), a project proponent may develop an additional stock of social capital *within* that platform by establishing relationships with other proponents and backers. We call this type of social capital *internal* and hold it separate from the *external* social capital composed of family and friends.

Internal SC appears, due to social *reciprocity* — social contacts within communities may induce community members to finance entrepreneurial initiatives in compliance with *social obligations*, that is, norms of (specific and generalized) reciprocity.

The results indicate that a one-standard deviation increase in *Internal Social Capital* is associated with a predicted increase of 5.1 early backers (from 13.8 to 18.9), which equals a 37.1% increase from the initial value.

Number of backers is crucial for project's success. According to Lichtig (2015), only 24% of projects that fail have more than 25 backers. Conversely, only 17% of successful projects had less than 25 backers. Thus successfully funded projects tend to have many backers and *vice versa*.

### **CULTURE CAPITAL (CC)**

Some authors suggest that geography strongly influences the perception of Culture Capital (CC) by potential backers. Having a local community of artists and creative individuals seems to increase the quality of projects produced by nearby founders. (Mollick, 2014). But, Agrawal, Catalini and Goldfarb suggest that investment patterns over time are not strongly related to the geographic distance between artist and funder after controlling for the artist's offline social network. Different responses relate to the likelihood that friends and family (tier 1 circle, who are disproportionately local) identify a given artist as a worthy recipient of funds. Controlling for preexisting offline social networks, we see little difference between local and distant investment patterns. Nevertheless, cultural differences play important role in project's success. Individuals are more likely to support charities and borrowers in need when they can empathize. It seems that cultural similarity may allow for such empathy. Cultural difference can also rein up desire to back the project. Burtch, Ghose and Wattal are giving evidence in their study of pro-social lending: an increase of one standard deviation in the cultural differences between lender and borrower countries is associated with 30 fewer lending actions, while an increase of one standard deviation in physical distance is associated with 0.23 fewer lending actions.

## **SYMBOLIC CAPITAL (SYMC)**

Even a growing social capital and appropriate magnitude of culture capital (leading to only mutual understanding) cannot guarantee a successful funding. For that to happen, strong SYMC is necessary, which acts as a catalyst in the transformation of SC into EC. There are many types of activities, helping to build SYMC. Designing video clips, describing entrepreneur's goal is important. Mollick (2014) shows that having no videos would result in a 15% chance of success, and videos make the chance of success 37%. He also states that increasing goal size as well as duration decreases the chances of success, possibly because longer durations are a sign of lack of confidence. Lichtig (2015) provides evidence that the number of projects a creator has previously launched is highly associated with the number of backers a project will get. Green (2014) designates that choosing perks (rewards) is substantial for donors, since most of successful campaigns offer four or five perks at increasingly higher suggested giving levels. The project owner needs to make sure the affordable perks don't run out too fast, or he risks losing potential backers who can't afford steeper offerings. But, entrepreneur should keep in mind a problem of non-appropriate reward in crowdfunding, which is linked with firsttimers syndrome. Lawton and Marom (2010) provide us with example of some intrinsic reward, when backer contributes a small amount of money, but, thanks to his huge network, such a backer gives the project a big crowd of potential investors (through sharing the project he liked with his friends). In fact, that particular investor with no money and big amount of friends made all the work (he catalyzed the major part of funding), but received nothing (or almost nothing) for his efforts. Such a problem can catalyze "first timer's syndrome" — the backer might never come back. That's reason enough to prognosticate that in the future, most successful crowdfunding sites will offer mechanisms to map non-monetary inputs into rewards and not choose a typical strategy, with increasingly larger sizes of investments parlayed into more premium rewards.

Launching the campaign by simultaneously going live on the crowdfunding platform site, announcing the campaign on the organization's social media pages and website, distributing a news release to the entire media list and sending a personalized e-mail to everyone in the organization's distribution list can be essential for building trust (Green, 2014).

Our research makes the following contributions: (1) Due to all previous findings are based on assumption that crowdfunders enjoy the same increase in utility, irrespective of their taste parameter, i.e. each project has an underlying propensity, that propensity varies across projects and among cultural groups in general, but not among individuals. Therefore, we investigate unexplored impact of character reference on utility, which person expects to obtain when contributing to social venture. This impact reflects estimation of social network willingness to help and response to translated SYMC, resulting in change of economic capital obtained; (2) Our KickStarter. com data analysis suggests no effect of campaign duration on project's success, which was stated in previous findings as influential parameter.

#### DATA AND METHODOLOGY

## KICKSTARTER. COM

Our sample comprises data on more than a thousand projects, loaded from kickstarter. com server, namely, goal, amount pledged, number of backers, project's subject, duration and location.

Our dependent variable, *Project's status*, captures whether project was successful or not. We include four independent variables, serving a base for our model: *project category*, i.e. its subject; *goal*, namely declared amount of funding; *amount pledged* and *number of backers*, who supported the project. Other variables, such as project's *duration* (which is also declared by venturer) and *location* of startup were found insignificant.

OLS regression of the following form was used:

$$P_{S} = \alpha + \beta_{pi}P_{i} + \beta_{g}G + \beta_{bk}B_{c} + \beta_{p}P + \epsilon$$

where, *Ps* stands for the status of the project (was it successful, failed or canceled); *Pi* reference the project category (Art, food, etc); *G* is amount of money,

declared by project's creator (goal); Bc is number of people (backers), supported the project; P stands for total amount of money (amount pledged), resulting the campaign.

All the coefficients are shown to be significant; R-Squared the coefficient of determination representing how close the regression is to its fitted line, is equal to 0.02. Such a low value suggests existence of other parameters influencing funding results. Our findings are in line with previous studies; however, we indicate insignificants of project's *duration* and *location* to its success.

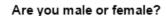
#### **SURVEY**

The survey was being conducted via three social networks: Facebook, LinkedIn and Vkontakte. As the result 105 participants took the survey, among them 65 men (61.9%) and 40 women (38.1%) aged from 17 to 60 and older. (Figure 3). The majority of respondents are from 20 to 39 years old which is defined by the choice of the social networks and also by the peculiarity of the crowdfunding as the "new-born" way of investing not spread among people with traditional way of thinking. Interesting that geographical range varies; and answerers who took the survey came from different countries from all over the world: Belarus, Argentina, Australia, Belgium, France, Hungary, Canada, Egypt, Georgia, Germany, India, Israel, Russia, Serbia, Slovakia, South Africa, Syria, the UK, Ukraine and the US.

When asked about whether respondent considers participating in some project using any type of crowdfunding, such as donation, pre-ordering, equity or loan-based crowdfunding 94 (89.5%) answerers said "yes" and only 11 (10.5%) replied negatively. The most accurate question: "Have you ever participated in crowdfunding campaign?" was designed to ask straight and beforehand about whether person participated or not in crowdfunding as backer/creator or he would like to take part in it in future. Surprisingly, but most of the respondents (40%) have already supported the project, only 4 (3.8%) were project owners, 33 respondents (31.4%) didn't deal with crowdfunding, and 26 answerers (24.8%) never participated but "would like to". (Figure 2). All of the

Table 1.

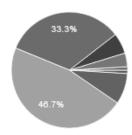
	Estimate	Std. Error	t-value	Pr (> t )
(Intercept)	3.430e+00	4.054e-03	846.136	< 2e-16 ***
Pi	-1.165e-07	7.988e-09	-14.582	< 2e-16 ***
G	-1.708e-07	1.151e-08	-14.836	< 2e-16 ***
Вс	8.419e-05	6.658e-06	12.645	< 2e-16 ***
Р	5.660e-07	8.057e-08	7.026	2.15e-12 ***





# Male 65 61.9% Female 40 38.1%

#### What is your age?



1%	1	17 or younger	
8.6%	9	18-20	
46.7%	49	21-29	
33.3%	35	30-39	
5.7%	6	40-49	
3.8%	4	50-59	
1%	1	60 or older	

Figure 3.

respondents are familiar with most popular crowdfunding platforms such as Kickstarter, Indiegogo and Rockethub, also the answerers added their national platforms in the field "other" to underline the popularity of crowdfunding as investment in their country. The respondents were asked to assess from 1 to 5 (1 - ``not important'', 5 - ``very important'') theirmotives to participate in crowdfunding as backers: a majority 52.9% reported that empathy and sympathy toward the project is "very important". In addition the answerers (44.1%) reported that it is "not important" to take part in order to strengthen social status; the pursuit to benefit from the project (financial profit) is assessed as "3 medium priority" by 33.3% of people. 34.6% of respondents reported that they would likely back their friend's project.

Also, the respondents were asked to assess from 1 to 5 (1 — "not important", 5 — "very important") their motives to participate in crowdfunding as project creators: 50.5% of the answerers reported that it is "very important" to be motivated financially before starting the campaign, 29.4% replied that it is "very important" to introduce people with your product and expand the awareness of the brand. 33.3% of the respondents are eager to gain approval and potential clients. 30.4% of the participants reported that it is "not important" to learn fundraising skills through the campaign.

Further, we asked questions to learn respondents' opinions on the banking system and also respondents' attitude to gambling, shopping in discount price time. Half of the answerers replied that they had a

bank loan and only 15% of this half reported that they had an overdue payment. We didn't ask the aim of the bank loan, but the research shows that the ones, who took the credit, would possibly use the same way of investment in order to start their own business. 78% of the respondents had any type of insurance and 94% of them would use it in future. 65% of applicants replied that they prefer to shop in discount price time, whether 29% don't care when to shop which shows the applicants' wish to get the product with cut price. It is a very important impact on the crowdfunding system: the backers for their donation get the product with discount or pre-order bonus.

Three questions were dedicated to the trials of inventing own business. 36.8% of the applicants reported that they created their own business, 17.9% didn't deal with it and 45.3% answered that they would like to invent their own project. The majority of the business creators found it unsuccessful (24 out of 39 respondents) and most of them used their own savings to start a business. Only 8 people used investors as a start capital. Therefore, we can conclude that answerers are more reliable using their own money rather than taking a loan. Most of the respondents are more eager to work for the profit-making company or their own for-profit business than for other kind of career. (Figure 4).

Finally, we asked a question "Which sum are you ready to donate to the project you like?" The majority of the respondents (53.9%) said that they were ready to donate 10-100 USD, 19 and 18%-1-10 USD and 100-1000 USD accordingly. Only 4 people can invest

Would you consider participating in some project using any type of crowdfunding, such as donation, pre-ordering, equity or loan-based crowdfunding?



Have you ever participated in crowdfunding campaigns?



 No
 33
 31.4%

 Yes, I supported the project
 42
 40%

 Yes, I was the campaign creator
 4
 3.8%

 No, but I would like to
 26
 24.8%

Figure 4.

serious sum of money starting with 1000 USD. And 6 respondents are not ready to invest any money in any crowdfunding projects.

Our dependent variable captures individual's will-ingness to participate in crowdfunding activities. We result including two independent variables, servicing a base for our model: past experience in crowdfunding and self-reported appropriate amount of donation. Besides, we explored influence of such characteristics as entrepreneurial experience; career preferences; attitude to traditional sources of finance and shopping discounts; gambling experience; motivation to support or create new ventures. None of these variables showed severe effect on willingness to participate and were excluded from model.

OLS regression of the following form is used:

$$Wc = \alpha + \beta_{he}He + \beta_{sr}Sr + \varepsilon$$

where, *Wc* references to the question "Would you consider participating in crowdfunding campaign?"; *He* indicates answers on "Have you ever participated in crowdfunding campaigns?"; *Sr* stands for question "Which sum do you consider appropriate, when investing in crowdfunding activities?"

All the coefficients shown are significant; moreover the R-Squared is equal to 0.24, which is a good value, when dealing with data related to social problems. Past experience in CF gives a positive effect on future participation. Also, increase in considered appropriate amount reflects to person's higher trust-

worthiness in CF, which explains his *willingness to* participate.

#### **DISCUSSION AND CONCLUSIONS**

Crowdfunding experienced exponential growth over the last years and can be regarded as an alternative to traditional financiers like banks, private equity funds, venture capital firms or angel investors. Early research provides sufficient amount of recipes, of how to run a successful CF campaign. The most important thing is to transmit a right quality signal to potential investor and to have motivated social network, willing to share signal further.

Our study improves on traditional explanatory models while revealing important insights into the determinants of successful crowdfunding campaign. As stated in previous findings, opportunity recognition is one of the key factors in crowdfunding campaign success. It consists of network support size and their willingness to participate. We assumed that willingness to participate in social ventures is driven by past experience and conducted the survey, interviewing people on different issues. We found no influence of respondent's age, gender, entrepreneurial background, career preferences, attitude to traditional sources of finance, experience in loan-taking, gambling history and motivation to support and create new ventures on decision to participate in crowdfunding activity. Although, we show that previous interactions with crowdfunding increase willingness to participate, i.e. scale up chanc-

Table 2.

	Estimate	Std. Error	t-value	Pr (> t )
(Intercept)	0.47910	0.07659	6.255	8.33e-09 ***
He	0.11274	0.02803	4.022	0.000108 ***
Sr	0.09087	0.02982	3.047	0.002909 **

es of positive reaction to transmitted quality signals, which turns in backing the project. Consequently, entrepreneur should estimate opportunity basing on number of social network participants, who already been involved in crowdfunding.

Next, we investigate influence of goal, amount pledged, number of backers, project's subject, duration and location on its final success. As goal, amount pledged, number of backers, project's subject turned to be important success determinants, we state that project's duration and location do not play any significant role in prosperous funding.

We can suggest the following direction for future research: investigation of the effect of project's subject and different types of platforms on subjective expected utility of crowd investor. This issue has been studied by some authors (Hardy, 2013) in the context of price discrimination, but project's subject and platform impacts lacks of research data.

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