CROWDFUNDING SUCCESS FACTORS: THE CHARACTERISTICS OF SUCCESSFULLY FUNDED PROJECTS ON CROWDFUNDING PLATFORMS

Complete Research

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Abstract

Crowdfunding platforms offer promising opportunities for project founders to publish their project ideas and to collect money in order to be able to realize them. Consequently, the question of what influences the successful funding of projects, i.e., reaching the target amount of money, is very important. Building upon media richness theory and the concept of reciprocity, we extend previous research in the field of crowdfunding success factors. We provide a comprehensive view on factors influencing crowdfunding success by both focusing on project-specific as well as founder-specific aspects. Analyzing a sample of projects of the crowdfunding platform kickstarter.com, we find that the project description, related images and videos as well as the question of whether the founder has previously backed other projects influence funding success. Interestingly, the question of whether the founder has previously created other projects has no significant influence. Our results are of high interest for the stakeholders on crowdfunding platforms.

Keywords: Crowdfunding, Kickstarter, Funding Success Factors, Media Richness, Reciprocity.

1 Introduction

Crowdfunding platforms offer project founders the possibility to request funding for their projects and the realization of their ideas from a variety of internet users active on these open online services (Mollick, 2014). Such a project founder is anybody who launches or wants to launch a project of any kind. These founders use platforms like kickstarter.com to advertize their projects and to find a project funding. Therefore, they create an online crowdfunding project on these platforms and add project-related information. Further, they can describe their ideas by posting project descriptions, communicate with their (potential) funders and promise rewards for the funding received. Any member of the platform has the possibility to become a funder of a project by promising a certain amount of funding. Online crowdfunding platforms are the mean to bring the founders together with the project funders. And, due to their simplicity, these crowdfunding platforms have become more and more popular, which has led to thousands of projects being created and successfully completed in the past years (Bradley and Luong, 2013).

However, it is common for crowdfunding platforms that only those projects which ultimately reach their before-defined and publicly displayed funding goal are finally funded. Only if this funding goal is reached, the platform members backing these projects by their funding promise are obliged to actually fulfill their promised funding (Etter et al., 2014). In contrast, if the funding goal is not reached, a project does not receive the funding and can therefore not be realized. Thus, it is of high interest to the

project founders to know what factors support a successful project funding. Our research addresses the question of how the project- and founder-related details on crowdfunding platforms can support funding success. Thus, our analysis is of high interest for project founders that search for a financing on online crowdfunding platforms.

Previous research has already considered the question of how particular project characteristics have to be specified such that a project is funded successfully. For instance, it has been found that the depth of the project description (Xiao et al., 2014) or the requested amount of money (Mollick, 2014) influence funding success. Initial studies have focused on the question of whether information about the project founder influences the funding success of future projects (Zvilichovsky et al., 2013(2013)(2013)). Nevertheless, to the best of our knowledge, there is a lack of research combining both aspects, i.e., the project description and the information on the project founder in one study. This combination provides a more comprehensive view on the factors of successful funding of projects and better takes into account possible interrelations.

Based on a sample of successfully and unsuccessfully funded projects of the crowdfunding platform kickstarter.com, we empirically evaluate our research model combining project-related and founder-related aspects. Thereby, we find that both project-related aspects as well as founder-related aspects influence funding success. For instance, more comprehensive information in form of texts, images, or videos added to the online project description positively influences funding success. Interestingly, those projects whose founders had backed other projects before are more often successfully funded compared to those projects whose founders did not engage in backing other projects. In contrast, the project experience of a founder, measured by the number of previously created crowdfunding projects on the platform, has no significant influence on successful funding.

With this study, we contribute to the literature on crowdfunding success by providing a more comprehensive view on which factors influence the successful funding of projects. Thereby, we extend the previous literature by not only taking into account either project-specific aspects or founder-related aspects. Instead, we consider the joint impact of both. Furthermore, we show that different kinds of media – video, images, and texts – are effective in the course of communicating project information and that each medium has an influence on the funding success of projects. Our results are highly relevant for all stakeholders on crowdfunding platforms because they help to assess ex-ante whether projects will be successful in funding.

This paper proceeds as follows. Section 2 presents the background and the research model of our study building upon previous research on crowdfunding as well as media richness theory. Section 3 focuses on the research methodology applied, including the acquisition of our dataset from Kickstarter. Section 4 presents the empirical evaluation of our research model and discusses the results. Finally, in section 5 we give a conclusion which summarizes the main findings from our analysis.

2 Background and Research Model

2.1 Crowdfunding

Within recent years, several studies have investigated which factors influence the success of crowdfunding projects, i.e., the question of whether the funding goal is reached or not. Herewith, it has been confirmed that project descriptions or the provision of videos have a positive influence on the successful funding of projects (Mollick, 2014). Communication with the platform members and visitors is shown to be important for successful project funding as well (Xiao et al., 2014). Xu et al. (2014) focus on updates of project descriptions and find that these updates also influence crowdfunding success. Furthermore, they provide a content analysis of project updates and find that updates are used to add further content, for instance to provide progress reports.

Additionally, several studies approach the dependent variable "funding success" with predictive analytics by focusing on project descriptions, applying text mining techniques, and forecasting the funding success based on the language used and project characteristics specified (e.g., Mitra and Gilbert, 2014 and Etter et al., 2014). Mitra and Gilbert (2014) analyze the phrases contained in project descrip-

tions, whereas Etter et al. (2014) focus on general project characteristics. These aforementioned explanatory and predictive studies have in common that the history of the project founder is not taken into account: the studies do not consider the question of whether the founder has been active on the platform before by backing or by having created other projects.

Nevertheless, the previous backing behavior might be important for new projects as potential funders on crowdfunding platforms might value whether a founder was active on the platform before. Previous activities might signal higher reliability compared to founders who have not been active before. Research in the field of signaling theory (e.g., Spence, 1974) showed that a proper signaling can reduce unsureness and increase credibility on markets without perfect information. However, literature focusing on previous backing behavior influencing funding success is quite scarce. Currently, a first study by Zvilichovsky et al. (2013) investigates whether the number of a founder's created projects as well as the number of backed projects influences funding success. This study finds indications that the question of whether a project founder has previously backed other projects has a positive influence but that the number of projects previously created has no influence. However, this study does not take into account several project characteristics, which are especially important as shown by previous research – in particular, the depth of the project information provided as well as the question of whether additional images are provided have been neglected.

Finally, first studies also investigate the question of whether crowdfunding projects are also successfully completed after the funding has been received. In this context, the dependent variable of interest is the question of whether the goal of the project has been reached and whether the rewards have been delivered, in contrast to the question of whether the project has been funded successfully. As this assessment of success is hard to measure since it is not reported directly on the project page, Mollick (2014) performs a manual analysis of projects in order to identify project success based on project information like discussions or descriptions. It is found that fraud, e.g., taking the funded money and then not responding to the backers anymore, is scarce. Nevertheless, the majority of products emerging from the funded projects are delivered with a delay, but in total, the projects can be regarded as having finally reached the project goal (Mollick, 2014).

To summarize, previous research either focuses on the factors influencing funding success from a project perspective or focuses on the question of whether the previous backing behavior has an influence. However, as both aspects are important for funding success, neglecting one of both might influence the results. Consequently, we close this research gap by investigating which factors influence crowdfunding success by taking into account both project characteristics as well as founder-specific aspects in order to provide a more comprehensive view.

2.2   Research model

In our research model, we address the impact of project-specific and founder-specific aspects on crowdfunding success. As already outlined within the previous sections, success can either encompass the successful completion of the project proposed, or (before the beginning of the project) its successful funding on the crowdfunding platform. In line with previous research, we consider the latter question, i.e., whether a project is successfully funded. This funding success is reached, when the amount of money pledged by individuals exceeds the determined pledging goal.

In the following, we outline the impact factors included in our research model as well as their hypothesized effects on the success of funding. Thereby, we especially build upon previous research in the field of crowdfunding in order to outline why certain project- and founder-specific characteristics have an influence on the success of funding. Furthermore, we build upon media richness theory as a new theoretical lens on crowdfunding success to explain the impact of different communication cues within the project descriptions.

Media richness theory deals with the question of which medium is used for which kind of communication and focuses on choosing the appropriate medium in order to reduce the receiver's uncertainty (Daft and Lengel, 1986). This choice is often made according to the potential ambiguity of the message content to be transmitted, the symbolic cues provided by the medium, and by the situational de-

terminants (Trevino et al., 1987). It is especially argued that task performance is increased if the medium's ability to convey information matches the related task (Daft and Lengel, 1986). Different kinds of media differ according to their richness, whereas face-to-face communication is for instance assumed to be richer than textual communication (Trevino et al., 1987) and richer media can have a positive influence on decision quality (Kahai and Cooper, 2003).

In the context of crowdfunding, it can be assumed that especially in case of more sophisticated projects, communication cues beyond textual descriptions might be appropriate for providing project information. For instance, images can be used in order to outline project details by showing construction plans or prototypes – i.e., information that might be hard to be transmitted in textual form. The same applies to the question of whether a video is included in the project description, as videos can be seen to be richer than photos since they also contain audio information. As a result, we include the usage of different kinds of communication cues within our research model and rely on media richness theory in order to explain their importance.

Next to these communication cues, we also focus on other project-specific and founder-specific aspects. Especially the impact of a founder's previous project experience as well as his backing behavior on the platform are included. Finally, several control variables are also taken into account as shown in Figure 1. In the next subsections, we provide the rationale for our research hypotheses.
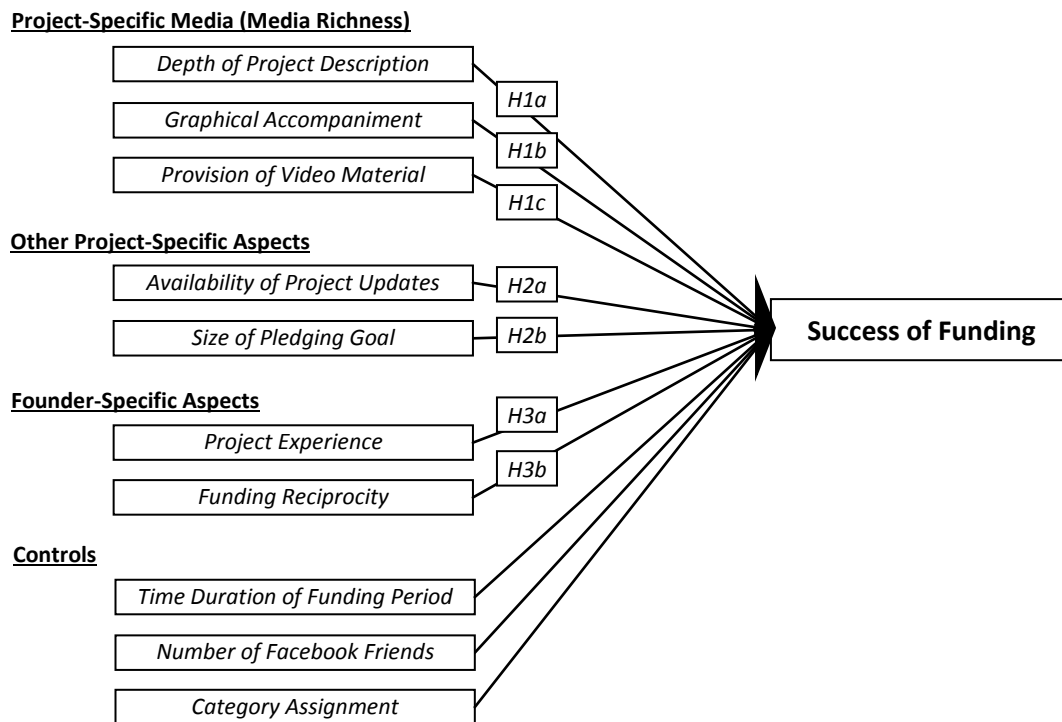

Figure 1.   Research Model to Explain the Funding Success of Crowdfunding Projects.

2.2.1   Depth of project description

Project founders have the possibility to publish information related to their project within the project description. It is already known from the field of information diagnosticity theory which focuses on the question of whether a specific text is helpful for decision-making or not (Mudambi and Schuff, 2010) that the amount of information published has a positive influence on the perceived helpfulness of texts like product reviews (Mudambi and Schuff, 2010). In this context, increased text length is associated with increased utility for its readers (Cheung et al., 2008).

Consequently, in the context of crowdfunding, founders can add more details on their project as well as on the specific steps leading to project realization in the project description. Therefore, potential

funders are better able to assess the project which supports their funding decision. Resulting from the increased information diagnosticity of the project description, it can also be assumed that there is a positive impact on the funding success of the project. As founders are also able to publish information on the risks related to the project, we assume another positive effect of the information published: more exhaustive descriptions of the project risks also support the funding decision, increase transparency, and might thus lead to more trust and more success regarding the funding of the project. Consequently, we hypothesize:

H1a: The depth of the project description has a positive impact on the success of funding.

2.2.2 Graphical accompaniment

Written text has great ability to describe issues, i.e., projects, purposes, objectives, ways of proceeding, and finally the project goal in detailed manner. However, it is reasonable that based on text alone a project presentation webpage cannot successfully call the attention of potential funders. We consider pictures, graphics, and appealing decoration elements as key factors to - in a first step - call visitor's attention and - in a second step - tease out visitor's funding support. Danaher et al. (2006) found in a cross-domain analysis that graphics have a significant positive influence on webpage visit durations. Thus, if a visitor's inherent sympathy with certain project topics is given, a longer visit duration increases the probability that the visitor deals with the written project details and is getting convinced that the project is worth funding. Glenberg and Langston (1992) show in an experiment that human apprehension is significantly supported by the provision of pictures. Moreover, Unnava and Burnkrant (1991) found in an experiment that especially information that is not imagery-provoking gains a higher recall rate when proper pictures are provided. From the perspective of media richness theory, using images enables richer communication than using only textual descriptions alone.

We thus assume that a better project understanding caused by graphical accompaniment eases the decision for venturing a project funding. Even if the visitor is going through a lot of projects to gain an overview, pictures may lead to a higher recall rate when the visitor is about to reason out which projects he will finally support by funding. Basing on these arguments, we hypothesize:

H1b: The utilization of images has a positive impact on the success of funding.

2.2.3 Provision of video material

While pictures only display a snapshot in time, videos are able to show movements and furthermore supply audio information. Besides from texts and pictures, this is the third way of presenting a project. In the case of projects dealing with solid state objects without spectacular functionalities in action, the visitor may be satisfied with pictures to gain enough information about the project and the appearance of the object that is dealt with. However, in some cases a pictorial snapshot is by far not enough for a sufficient understanding of the project or even for a sufficient convincement that the project is worth funding. If, for example, a project deals with theater engagement, movie production, or music recording, only communication based on videos has sufficient richness to provide the necessary information about whether the project is worth funding or not. But also object functionalities, scenes of computer games and even simple objects can be shown from various dimensions in a video.

Park and Hopkins (1993) conducted a thorough literature review and list a substantial amount of research that found evidence for the fact that dynamic visual display of information is more effective than static visual display of information. Moreover, Jiang and Benbasat (2007) found in an empirical analysis that websites with video content are perceived as more useful by the visitor compared to websites with static-picture formats only. This leads to the conclusion that videos tendentially increase project acceptance as the visitor might feel more familiar with the project contents after the video presentation.

If a visitor has to decide either to read through text to gain information or to watch a video, he might decide to watch the video in a first step, as this is the less labor-intensive way of gaining information that might also be given in the project description text. In the next step, if the visitor is interested in further information, he can still read through the given text. This leads to the conclusion that if video

material is provided, even convenient visitors find a rather unresisting way of gaining information about the project. If no video is given, these visitors may not even try to gain the information that would be needed to decide for a funding. Jiang and Benbasat (2007) argue that a video format grabs more attention of human individuals because of dynamic scene changes and sound effects. According to their argumentation, individuals are more motivated to product learning by video format than by static-picture format. Thus, video provision tendentially increases the number of visitors who deal with the project contents and, by this, increases the number of potential funders.

A third argument we want to point out deals with videos that show the project founder and/or project members. Apart from possible demonstrations or descriptions of the project content, in such videos, the page visitor has the chance to virtually meet and come to know the persons responsible for the project conduction. If a possible funder carries the inherent wish to know the responsible persons before funding, i.e., before giving the money to them, such a video certainly lowers the felt uncertainty and unsureness against the responsible persons. Egger (2001) and Fogg et al. (2001) give advice concerning how to maximize perceived trustworthiness in the area of e-commerce. They state that presenting real people of a company helps in conveying a "real-world feeling" and adds credibility. Thus, funding inhibition might be taken off the potential funder, as possibly sympathy with the responsible persons evolves or at least the needed information level concerning the responsible persons is reached.

Following these arguments, we hypothesize:

H1c: The provision of video material has a positive impact on the success of funding.

2.2.4 Availability of project updates

By the provision of a static project description (i.e., the entirety of text, pictures, and videos), only those are encouraged to fund who directly believe in a proper conduction of the project just by the information given. As the description is prepared at the beginning or at least at a rather early stage of the project, this information is static in the sense that no continuous progression status is revealed. Visitors that need certain forms of persuasion that the project conduction is properly performed and a certain progression speed is asserted will not be convinced by just the static description. If updates, i.e., project status indications, preliminary results, but also problems that are dealt with or being solved, are regularly and continuously posted, the visitors waiting for progression evidence may get convinced that the project members are highly engaged that the project will reach its goal and is thus worth being funded. Consequently, we hypothesize:

H2a: Project updating has a positive impact on the success of funding.

2.2.5 Size of pledging goal

For a potential funder, there are two ways of estimating the size and complexity of a regarded project. The first is collecting all available information on the project conduction and project goals and then trying to estimate how difficult, work-intense, and complex the project may be. The second way is using the pledging goal as a proxy for the size and complexity of the project. A higher pledging goal, i.e., the amount of money that has to be pledged that the funding is successful, is inevitably connoted with a project of a greater size. Even before having read the project description, a visitor may try to reason out how difficult the project conduction may be or how much money has to be invested to reach the project goals. The more complicated or money-intense a project is, the more confidence is needed for a funding. The potential funder has to be assured that the project members are trustful and/or engaged enough to really do what they promise.

As difficult projects or projects that need high investments might be judged to be riskier, the visitor may develop a higher reservation against the project. Thus, higher pledging goals tendentially lower the ease of funding and a high pledging goal must be properly compensated by signs of trustworthiness. As follows, we hypothesize:

H2b: The size of the pledging goal has a negative impact on the success of funding.

2.2.6 Project experience

A founder on a crowdfunding platform is not restrained to create only one single project, i.e., a regarded project may not be the first project created by the founder. Principally, there are uncountable ways of presenting and describing a project on a crowdfunding platform. Arrow (1962) highlights that "Learning is the product of experience". And as the best approaches of project presentation are not self-evidently und unmistakably clear, we assume that creating more projects leads to a learning effect; which means that the founder gains skills of how to present the project best and how to be successful in the funding process.

Furthermore, we assume that this experience has an effect on potential funders' funding decisions. If the number of previously created projects is visibly displayed on the project page or personal founder page, the visitor may presume that this experience in creating (i.e., conducting projects) is a good estimator for this project also reaching its determined goals. Abdul-Rahman and Hailes (2000), who discuss trust supporting factors in virtual communities, argue that reputational information is important for the generation of trust. Thus, a founder who has been engaged in conducting projects for considerable time is seen as more trustworthy and more competent compared to new members who create a project for the first time on the platform.

If there is also the possibility to have a closer look on the previously created projects, the visitor is able to take the information on the past projects into account while forming an opinion on whether to fund the project or not. For the case of successfully completed projects in the past, we refer to the Matthew Effect, which assumes that success of the past is often followed by the assumption of further success. Merton (1968), for example, describes the Matthew Effect in the area of science. He states that eminent scientists receive relatively great credit for the same contribution while unknown scientists receive disproportionately little credit. Transferred to the crowdfunding context, this means that if a founder has already received great credit, i.e., has already been given money in the past to reach successful funding, it is more likely that he will also be given money now and in the future. This might also be explained by some kind of herd effect.

Basing on these arguments, we hypothesize:

H3a: The experience in project creating has a positive impact on the success of funding.

2.2.7 Funding reciprocity

Reciprocity in general is the mutual exchange of tangibles or intangibles - e.g., money or solid objects concerning the first, and help or services concerning the latter. In the crowdfunding context, there can be discovered two kinds of reciprocity: direct reciprocity (between two individuals) and indirect reciprocity (between an individual and a group). This differentiation also has been referred to by Zvilichovsky et al. (2013) in the context of their crowdfunding analysis.

Gouldner (1960) describes reciprocity as a norm, which obliges people to help those, who have helped them before. Concerning direct reciprocity, one can argue that a platform member A is more likely to fund a project of member B if member B also funds a project of A. This funding reaction might either originate from gratefulness against the funder or from emerging sympathy towards the funder. Gouldner (1960) explains that the norm of reciprocity is often maintained by egoistic motivation. Each individual is motivated to hold a social system alive as further profiting from this system is promising. Johnson et al. (2014) states that direct reciprocity is a motivating factor for mutual help in online communities.

The indirect reciprocity does not take place between two members, but is a more general and superordinate social effect spanning the whole platform. Principally, there are two kinds of founders: first, founders who only search for funding of their own projects and, second, founders that search for funding but also engage in funding other projects. Using the term of indirect reciprocity, Johnson et al. (2014) describe reciprocity between an individual and a group as a whole. If a founder engages in funding other projects, this support of other platform members may be seen as social integration into the platform, i.e., the crowdfunding community. The project founder explicitly supports the platform

community and thus the community as a whole tends to give back support, i.e., the community rewards a founder's engagement and integrity by their funding. We also argue that somebody who gives is tendentially seen to be more trustworthy than somebody who only takes from the others.

Basing on these reciprocity arguments, we hypothesize:

H3b: The engagement in funding has a positive impact on the success of funding.

2.2.8   Control variables

There could be the argument that the length of the funding period has a direct impact on the money that is pledged to a project. One could argue that the longer a project is presented to the community, the higher is the probability that platform members get aware of it which might translate into the amount of funding. To control for these effects, we include the time duration of the funding period in our research model.

We also control for possible effects resulting from the display of the number of Facebook friends of the project founder. Possibly, potential funders are impressed by a lot of friends, leading to the opinion that the founder must be trustworthy and/or successful. To avoid that the research model neglects these effects, we include the number of Facebook friends.

Furthermore, the projects on a crowdfunding platform can basically be arranged and assigned to different core categories according to the project content. There are categories such as "Music", "Food", "Lifestyle" or "Games". As these categories stand for individual orientations and interests, different types of potential funders may be attracted. We want to be sure that the project category assignment does not affect the results, as different types of visitors may show different funding behavior. This is why we explicitly control for the project categories in our regression.

3   Research Methodology

3.1   Description of the analyzed crowdfunding platform

The object of research of this study is the kickstarter.com crowdfunding platform. In total, 199,441 projects were created on this platform and presented to the public (figure taken on 11/26/2014). These projects are assigned to 15 specific categories (Art, Comics, Crafts, Dance, Design, Fashion, Film & Video, Food, Games, Journalism, Music, Photography, Publishing, Technology, Theater).

Each project has a main page providing the crucial information on the project and the funding process. The information given on this main page is either part of the individual project description, which is designed and built up by project founders, or is automatically generated and displayed by Kickstarter. While there is a fixed overall page framework (i.e., the available data fields are arranged similarly for all projects), the content of these project descriptions can be chosen relatively freely.

At the top of each main page, the project title and the name of the project founder are displayed. For the top of the project description, the founder can choose whether to display a static picture or to provide video material. Directly below, it follows a highlighted short text and, next, it follows the main description text. Here, images and videos can be provided. Also on the main project page surrounding this project description, information on the project category and the founder profile photo are given.

Also next to this project description section, there are automatically generated figures that represent the funding state, the connectedness, and the engagement of the founder. These figures consist of the number of updates (posted by the founder), the number of project funders, the number of comments (posted by any platform member), the number of the founder's created projects, the number of the founder's backed projects, and the number of the founder's Facebook friends.

Figure 2 gives an stylized overview of the typical appearance of a main project page on Kickstarter. In this figure, the square brackets [##] stand for a variable number field.
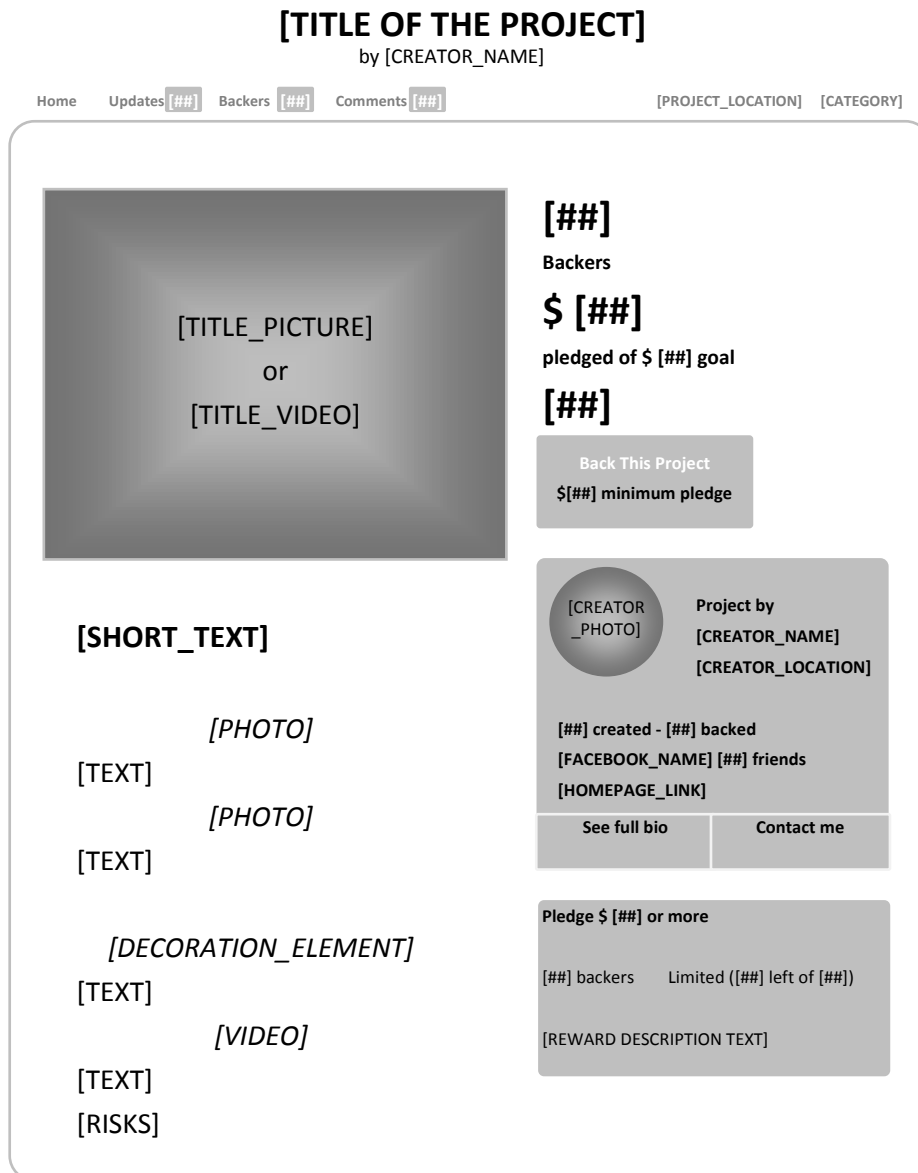
[TITLE OF THE PROJECT]
by [CREATOR_NAME]

Home   Updates [##]   Backers [##]   Comments [##]   [PROJECT_LOCATION]   [CATEGORY]

[TITLE_PICTURE]
or
[TITLE_VIDEO]

[##]

Backers

$ [##]

pledged of $ [##] goal

[##]

Back This Project
$[##] minimum pledge

[CREATOR
_PHOTO]

Project by
[CREATOR_NAME]
[CREATOR_LOCATION]

[##] created - [##] backed
[FACEBOOK_NAME] [##] friends
[HOMEPAGE_LINK]

See full bio   Contact me

[SHORT_TEXT]

[PHOTO]
[TEXT]
[PHOTO]
[TEXT]

[DECORATION_ELEMENT]
[TEXT]
[VIDEO]
[TEXT]
[RISKS]

Pledge $ [##] or more

[##] backers   Limited ([##] left of [##])

[REWARD DESCRIPTION TEXT]

Figure 2.   Structure and Elements of a typical Kickstarter Project.

For our analysis, we collected the available data of crowdfunding project from the Kickstarter.com crowdfunding platform. In total, we collected the information of 1,000 projects, from which 500 projects were successfully funded and 500 failed to reach their pledging goal. In our analysis, we intentionally focused on the latest finished funding projects as of 10/28/2014. We did explicitly not include any project to our analysis that was older than these 500 latest successful and 500 latest unsuccessful projects. As, by this, all regarded projects are of close temporal proximity, this approach of collecting data lowers potential time effects, i.e., trends and/or a seasonality.

As we include in our research model the money-based figures which are denoted in different currencies, we decided to focus on projects whose figures are denoted in USD for comparability. This approach resulted in a final data set of 762 projects which we used for our further analysis.

3.2 Variable operationalization

In our research model, we include project-specific and founder-specific aspects regarding the crowd-funding projects. In our model, we control for whether the founder has or has not posted update information on the project: $Updated$ is a Boolean variable which equals 0 if there are no updates and equals 1 if the number of updates is not equal to zero. The time duration of the funding period is included by $TimeDur$, which is measured in days. The amount of money that has to be collected for a successful funding, i.e., the pledging goal, is included by $PledgingGoal$, which is measured in USD. $HasTitleVideo$ is a dummy variable giving information on whether a picture or a video is provided at the top of the project description. The number of pictures and decorative elements is covered by $NoOfPictures$, which states the exact number of graphic elements in the project description. $WordsText$ and $WordsRisks$ include the number of words of the descriptive text parts and of the text part dealing with potential risks of the project respectively. Concerning the founder-specific information, we include the number of the founder's Facebook friends, $NoOfFriends$, the number of projects that the founder has backed, $NoOfBackedProjects$, and the total number of projects that has been created by the founder, $NoOfCreatedProjects$. Also added to the model are the N project categories, Cat_i.

3.3 Statistical analysis

As the funding success is either given or not, the variable $Success$ is a dummy variable that equals 0 if the funding was not successful and equals 1 if the funding was successful. Thus, the developed research model grounds on a logit regression (Wooldridge, 2013), which is set up as follows:

$$Prob(Success = 1) = F(const + \beta_1 WordsText + \beta_2 WordsRisks + \beta_3 NoOfPictures + \beta_4 HasTitleVideo + \beta_5 Updated + \beta_6 PledgingGoal + \beta_7 NoOfCreatedProjects + \beta_8 NoOfBackedProjects + \beta_9 TimeDur + \beta_{10} NoOfFriends + \sum_{i=1}^{N}(\beta_{10+i} Cat\_i)),$$

where $F(\beta'X) = \exp(\beta'X) / (1 + \exp(\beta'X))$, ε is an error term and β, X are column vectors.

4 Empirical Study

4.1 Descriptive statistics

Table 1 presents the descriptive statistics of our sample. Concerning the description text, we find that a project is described by about 550 words on average. The longest description consists even of close to 5,000 words. Throughout our data, the risk descriptions ($WordsRisks$) are distinctly shorter and consist of about 100 words on average. There are both projects without a single additional graphical element and projects with a plenty of pictures and decorative elements. In our data set, the maximum of included graphics is 65. While the average number of graphics in the project description is about 6 graphics per project, the median equals one. This means that half of the project descriptions have none or only one additional graphic contained. Furthermore, we found that about 7 out of 10 projects provide a video at the top instead of just a picture.

Concerning the founder-specific information, we found that the majority of regarded projects are the first project of the founder. The number of backed projects is considerably higher and lies between none and close to 300 backed projects. The average founder backed 5 projects.

40% of the projects were left without any update posted by the founder. Furthermore, we see from the data that on average a funding period endures 25 days, a pledging goal is on average close to USD 50,000 and the average number of Facebook friends is about 500 per founder.

From the variable correlations, we conclude that there are no highly correlated variables. The highest correlation between the explanatory variables is between the number of words in the description text ($WordsText$) and the number of graphical elements ($NoOfPictures$) which amounts to 0.55. All other correlations between explanatory variables are considerably less than 0.4.

Variable	Mean	SD	Min	Max
Successful	0.507	0.500	0.000	1.000
WordsText	553.874	585.585	6.000	4,948.000
WordsRisk	108.482	91.723	1.000	1,257.000
NoOfPictures	6.098	10.079	0.000	65.000
HasTitleVideo	1.717	0.451	1.000	2.000
Updated	0.613	0.487	0.000	1.000
PledgingGoal	48,463.190	908,754.200	10.000	250,000,000.000
NoOfCreatedProjects	1.571	1.771	1.000	22.000
NoOfBackedProjects	5.193	19.062	0.000	295.000
TimeDur	24.946	7.356	2.000	37.255
NoOfFriends	509.236	794.018	0.000	4,854.000

Table 1.   The Means and standard deviations (SD) of the main independent variables.

	Variable	1	2	3	4	5	6	7	8	9	10	11
1	Successful	1.00										
2	WordsText	0.22	1.00									
3	WordsRisk	0.11	0.39	1.00								
4	NoOfPictures	0.25	0.55	0.22	1.00							
5	HasTitleVideo	0.32	0.25	0.23	0.25	1.00						
6	Updated	0.49	0.29	0.25	0.30	0.33	1.00					
7	PledgingGoal	-0.04	0.02	0.00	-0.01	0.03	-0.04	1.00				
8	NoOfCreatedProjects	0.11	0.16	0.10	0.23	-0.03	0.14	0.01	1.00			
9	NoOfBackedProjects	0.17	0.23	0.18	0.26	0.09	0.17	0.02	0.25	1.00		
10	TimeDur	0.09	0.10	0.10	0.12	0.18	0.13	0.00	-0.06	0.05	1.00	
11	NoOfFriends	0.11	0.02	0.02	-0.01	0.12	0.14	0.04	-0.02	0.00	-0.02	1.00

Table 2.   Variable Correlations.

4.2   Evaluation of the research model

The results of our logistic regression are presented in Table 3. First of all, we confirm that the depth of the project description has a positive influence on the successful funding of crowdfunding projects, which is significant at a 5% level of significance. Thus, founders can increase the funding success of their projects by adding more information. Interestingly, the depth of the risks section has no influence on funding success, so descriptions on potential risks are neither valued nor have a negative influence.

Furthermore, the question of whether images or videos are contained in the project description is highly relevant as well. As can be seen from the results, the impact of videos is highly significant ($p < 0.01$), whereas the impact of the number of images is significant at a 10% level of significance. Again, this shows that funders value increased information related to a project transmitted via different media.

Related to the founder characteristics, we observe that the number of projects previously backed has a positive influence on the successful funding of a project. This influence is significant at a 1% level of significance. Consequently, founders who are active on the crowdfunding platform and also fund other projects have a higher chance of funding success compared to those founders who have not been active on the platform before. Interestingly, there is no significant influence of the number of projects founders have previously created. This shows that experience in founding projects is not that important for the decision to fund a project.

Furthermore, we observe that it is of high importance to update the project description throughout the funding period, which is shown by the positive influence of the updated dummy variable (significant at a 1% level). Interestingly, the influence of the funding period length was not shown to be signifi-

cant, which can lead to the conclusion that platform members who are interested in a project place their funding within the first days after the project has become public, so that a longer funding period does not lead to further advantages. We also observe that (as can be expected), the higher the funding goal, the lower the chance that a project is funded successfully. Finally, the number of Facebook friends of a founder does not have an influence on the question of whether a project is successfully funded or not.

	Variable	Coeff.	Std. Error	p-value
H1a	WordsText	0.001	0.000	0.033**
	WordsRisk	-0.001	0.001	0.430
H1b	NoOfPictures	0.028	0.015	0.059*
H1c	HasTitleVideo	0.982	0.240	0.000***
H2a	Updated	2.039	0.215	0.000***
H2b	PledgingGoal	-0.000	0.000	0.000***
H3a	NoOfCreatedProjects	0.007	0.065	0.909
H3b	NoOfBackedProjects	0.041	0.012	0.001**
Controls	TimeDur	0.010	0.014	0.454
	NoOfFriends	0.000	0.000	0.993
	Category dummies	included		
	$p > \chi^2$	0.000		
	Pseudo R^2	0.331		
	No. of observations	762		

*Table 3.   Regression Results Explaining the Funding Success of Projects (Regression Coefficients, Standard Error, p-Value, Significance: * p < 10%; ** p < 5 %; *** p < 1%).*

Related to the quality of our results, we observe that the hypothesis that the different independent variables have no influence can be rejected at a high level of significance ($p < 0.01$) and that the pseudo R^2 is quite high. Nevertheless, due to the nature of the logit regression, the pseudo R^2 can rather be used to compare the results of different models based on the same dataset in contrast to compare the results with other datasets, so we report it for the reason of completeness.

4.3   Discussion

The results of our empirical study clearly confirm that project founders are able to increase the success of funding on crowdfunding platforms by using appropriate project descriptions and being active on the related platform. Thereby, especially information provided in form of texts, images as well as videos can be used in order to attract attention towards a project. In addition, as outlined by the study results, being an active participant on the crowdfunding platform is very important to support crowdfunding success.

We are aware of the limitation that the results of the study might be influenced by the specific platform analyzed, i.e., kickstarter.com. Nevertheless, the main independent variables in this study might be presented similarly on different platforms, like descriptions, images, or videos. Furthermore, platforms might differ in the question of how much information is presented to the public, for instance information about a specific funder. However, the impact of the main independent variables which can be assumed to be displayed similarly on different platforms might be comparable as well.

Furthermore, our current study only takes into account the question of whether a project was successfully funded or not. In contrast, it might also be relevant of how successful a project was – i.e. whether the requested amount of funding was exceeded by 10% or by 100%. Consequently, the impact of the different factors could vary if not the binary (successful / not successful) dichotomy is investigated but

if the actual amount of funding is taken into account. However, in the current study, we have decided to take this binary decision into account since this represents the most crucial question on crowdfunding platforms, i.e., whether a project can finally be realized as it has received the target amount of funding – or not.

Finally, in the current version of our study, we only consider whether descriptions, images, or videos are included in the descriptions. In contrast, we do not focus on the specific contents of the texts or images. Although it can be assumed that the impact of such media contained in the description can vary according to their helpfulness, this analysis is in line with other studies in the field of the information diagnosticity of online product reviews which always consider the depth, i.e., the number of words of texts (Mudambi and Schuff, 2010; Siering and Muntermann, 2013). We consequently leave a more fine-grained analysis of the contents as well as the impact of other aspects such as trust (which has to be measured by taking into account qualitative data) for future research.

5 Conclusion

In recent years, crowdfunding platforms like kickstarter.com have emerged offering founders the possibility to present their projects, attract potential funders, and thus collect the money necessary for realizing their projects. Consequently, the question of which information has to be provided in order to increase the chance of successful project funding is fundamentally important, especially since projects only receive the funding if they reach the target amount. Although previous research has focused on whether project-specific or founder-specific aspects influence funding success, a more comprehensive view on the funding decision combining both aspects is missing.

With our study, we contribute to the literature on crowdfunding and funding success. To the best of our knowledge, we are the first to provide this comprehensive view on the factors explaining this important variable. Here, we extend the previous knowledge by the fact that both project-specific and founder-specific aspects have an influence on the question of whether a project is successfully funded and can thus be realized. Furthermore, we contribute to media richness theory by applying media richness theory in the context of crowdfunding and showing that different communication cues have an impact on funding success. Finally, we also contribute to the literature on reciprocity by showing that in the context of crowdfunding, founders are more successful in having their projects funded when they have previously backed other projects.

From a practical point of view, the results of our study are highly relevant for stakeholders on crowdfunding platforms. Project founders can make use of the results in order to improve the information related to their projects to increase the chance to have a project successfully funded. Therefore, founders should provide informative texts and also present related pictures as well as videos. Furthermore, founders should also update their project information during the funding period, for instance by considering questions asked by the backers. Next to providing project information, founders should increase their activity on the crowdfunding platform in order to increase the funding of their own projects as well. Our results are also relevant for crowdfunding platforms itself. These platforms might automatically assess the chance of successful funding of projects in order to display them first on search results pages. Furthermore, platform operators could also suggest changes to founders whose project descriptions have been evaluated as potentially less successful.

The current study can be extended within multiple research directions. As a first step, the study can be transformed from an explanatory to a predictive context. Therefore, machine learning techniques can be applied in order to forecast the project success by taking into account project-specific as well as funder-specific aspects. Furthermore, the current results are based on an analysis of kickstarter.com. In order to further confirm the results, the study might be repeated analyzing another platform. Finally, the current analysis controls for the different project categories. In a next step, sub-analyses can be performed on the specific project types in order to find out whether specific project parameters differ and to investigate the specific impact on funding decisions.

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