GET THE BALANCE RIGHT: CAN NORMATIVE APPEALS ENCOURAGE FUNDERS TO SUPPORT SELECTED CROWDFUNDING CAMPAIGNS?

Research in Progress

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Abstract
Increasingly more and more people turn to crowdfunding, either as entrepreneurs to get their idea funded or as financiers to help others realizing what might become a successful business one day. One situation frequently encountered on crowdfunding platforms is that certain projects receive more funding than needed, whereas others fail to achieve sufficient funding. To this day, no research has examined how a more efficient distribution of funds on crowdfunding platforms can be achieved. Since crowdfunding is a highly social process, we propose social norms as a governance mechanism to balance crowd’s funds more efficiently. Therefore, this paper proposes an experiment to test if social normative appeals can be used as a tool to actively influence the funding behavior of individuals, ultimately increasing the number of funded campaigns.

Keywords: crowdfunding, social norms, experiment, persuasive systems.
1 Introduction

Crowdfunding seems to have taken the world by storm. The reason for this development is that crowdfunding addresses an important market niche. Crowdfunding offers an alternative source of financing for those who are unable to attain funding from more traditional sources such as banks, venture capital funds, and angel investors. With a steadily growing number of platforms, crowdfunding is characterized by high dynamics (Hemer, 2011). Recent industry reports suggest that the importance of crowdfunding is very likely to further increase. Thus, the worldwide funding volume of crowdfunding platforms rose from 1.5bn dollars in 2011 to 2.7bn dollar in 2012, and it was said to grow to 5.1bn dollars by 2013 (Massolution, 2012; Gierczak, Bretschneider, Haas, Blohm and Leimeister, 2015).

Crowdfunding is also a popular topic in the academic world. Currently, a stream of research can be recognized that focuses on investigating the influences on backers’ funding behavior. Studies on the motivation of backers show that in addition to material rewards also social factors play an important role as to why people fund on these platforms (Bretschneider, Knaub and Wieck, 2014). For example, Gerber et al. (2012) found that individuals are motivated to engage in crowdfunding because they want to help others, or because they want be part of a community. Beside the motivational factors of individuals, there is evidence that the behavior of peers can have a strong influence on the funding behavior of individual backers (Burtch, Ghose and Wattal, 2013; Koning and Model, 2013). For example, prior investments of experts as well as recommendations of friends can act as strong cues that direct investment decisions of individuals to certain projects (Liu, Brass and Chen, 2014; Agrawal, Catalini and Goldfarb, 2013a; Kim and Viswanathan, 2013). Other factors that were shown to guide peoples funding decisions are prior funding volume, external references (Mollick, 2013), popularity rankings, and blog entries (Ward and Ramachandran, 2010).

One aspect that has not been considered by research that investigates influencing factors on backers’ funding behavior are social norms. This seems peculiar given the fact that crowdfunding constitutes online social communities (Hui, Greenberg and Gerber, 2014), and evidence suggests that social norms play a key role in behavior of people (Aarts and Dijksterhuis, 2003; Cialdini, Kallgren and Reno, 1991; Darley and Latane, 1970; Goldstein, Cialdini and Griskevicius, 2008; Terry and Hogg, 2001). In social psychology, social norms refer to patterns of group behavior. A large body of research in other fields indicates that social norms conveyed via written messages are very effective in encouraging people to engage in sustainable behavior (Cialdini et al., 1991; Nolan, Schultz, Cialdini, Goldstein and Griskevicius, 2008; Reno, Cialdini and Kallgren, 1993; Schultz, Nolan, Cialdini, Goldstein and Griskevicius, 2007; Goldstein et al., 2008). Further research suggests that people follow such norms even if the personal benefits are unclear. O’Mahoney (2003) for example showed that people in online software communities followed group norms by volitionally accepting the norm of “good behavior,” which includes not stealing and giving credit to other members’ contributions, even when there is no legal protection of intellectual property rights. Since crowdfunding is a highly social process, we propose that the concept of social norms can be used to influence backers to invest in a crowdfunding campaign.

Our research interest is guided by the practical concern that intermediaries of crowdfunding platforms still lack efficient mechanisms to persuade backers to fund and achieve a more efficient distribution of funds. Thus, one situation frequently encountered on crowdfunding websites is that certain projects receive more funding than needed, whereas others fail to achieve sufficient funding. To address this problem, this research in progress proposes an experiment that aims at investigating whether or not newly introduced social norms can actively influence the funding behavior of people. Since prior research could show that people who follow social norms often do so unconsciously (Nolan et al., 2008), we decided that an experiment is the right method to investigate this phenomenon in crowdfunding. The experiment will be conducted in a laboratory setting where participants will be confronted with a typical crowdfunding scenario. The aim of our research is to test if backers, when confronted with normative appeals, are more likely to invest in a crowdfunding campaign. We use the term normative messages to refer to injunctive as well as descriptive appeals (a more thorough explanation of these appeals is provided in the following chapters).
2 Theoretical Background: Social Norms

Research on social norms has a long tradition in the field of psychology and social psychology. Social norms are defined as “rules and standards that are understood by members of a group, and that guide and/or constrain social behavior without the force of laws” (Cialdini and Trost, 1998). Early research showed that social norms emerge out of interaction with others (Sherif, 1936). In a laboratory experiment, Sherif (1936) was among the first to show that people change their perceptions and judgements when introduced to a group setting. Follow-up studies confirmed this initial observation by showing that group norms led people to engage in arbitrary (Milgram, Bickman and Berkowitz, 1969), irrational (Asch, 1956), and even self-destructible behavior (Maxwell, 2002; Latané and Darley, 1970).

On the reasons why people follow social norms, literature provides two reasons. On the one hand, it is argued that following social norms is often the result of adaptive behavior. Thus, if people see how others behave they can infer from that what might be the most effective behavior in a particular situation. Imitating the behaviors of others is thereby a strategy that saves cognitive capacity and time. On the other hand, it is argued that people often engage in norm-congruent behavior because they want to produce liking. In situations where people strive for affiliation, they are very likely to conform to group norms because they fear rejection or disapproval (Griskevicius, Goldstein, Mortensen, Cialdini and Kenrick, 2006; Cialdini and Trost, 1998). Norms therefore provide a reference point for effective and likeable behavior which people do not want to deviate from.

In line with these considerations, literature distinguishes between two kinds of social norms – injunctive norms and descriptive norms (Cialdini et al., 1991). Descriptive norms provide information on how most others behave in a particular situation. They simply guide us by telling what most others do. By acting on descriptive norms, people follow the mantra “If everybody is doing this, it must be a sensible thing to do”. Consequently, observing the behavior of others allows us to infer a heuristic for what might be the most effective behavior in a particular situation. In contrast, injunctive norms inform us about what other people generally approve or disapprove. They guide us by telling us what “ought to be done” (Cialdini et al., 1991; Cialdini, 2001). In doing so, they appeal to our moral beliefs of what is right and wrong. Since moral beliefs are determined by what is commonly accepted, people act on these norms because they fear informal sanctions in the form of disapproval. Research suggests that both descriptive norms and injunctive norms are powerful motivators of human behavior (Festinger, 1954; Asch, 1956; Berkowitz, 1972; Deutsch and Gerard, 1955; Milgram et al., 1969; Sherif, 1936; for a review, see Cialdini and Trost, 1998).

The fact that people tend to conform to what they consider a social norm makes them a powerful tool in guiding people’s behavior. More recent research showed that interaction is not necessary for social norms to emerge and to spread. Evidence indicates that communicating social norms in the form of written appeals suffices to change people’s behavior in desired ways. So far, such normative appeals were most frequently employed within social marketing campaigns, where they were shown to discourage problem behavior among college students. In doing so, normative appeals were formulated with the aim to clarify general misperceptions among a student population. For example, communicating to students that the actual drinking amount of their peers is lower than they would expect (descriptive appeal) resulted in decreased alcohol consumption of these students. Messages indicating that drinking among peers is not as widely accepted as believed (injunctive appeal) had a similar effect (Berkowitz and Perkins, 1986; Perkins, 2002). Moreover, normative appeals (i.e., descriptive as well as injunctive appeals) were shown to be effective in reducing tobacco consumption, violence, and other deteriorating behaviors of students (Berkowitz, 2010; Perkins, Craig and Perkins, 2011; Donovan and Vlais, 2005).

Further research showed that normative messages are equally effective in promoting pro-social behaviors. (Cialdini et al., 1991; Goldstein et al., 2008; Griskevicius, 2007; Schultz et al., 2007). In an effort to encourage guests to participate in an environmental conservation program of a hotel, Goldstein et al. (2008) introduced a descriptive appeal indicating that the majority of people engaged in the desired behavior of towel reuse. Their appeal differed from previous appeals in that it conveyed that desirable behaviors occur more often than people think. People confronted with this message were more likely to engage in the same sort of behavior. A similar study found that households that received normative...
information describing the recycled amount of an average neighborhood family increased both the amount and frequency of their subsequent curbside recycling behaviors (Schultz, 1999).

3 Theory Development and Hypothesis

We can conclude from the previous research that both injunctive and descriptive appeals can be used to make desired and actual behaviors more salient (Cialdini et al., 1991), thereby directing the behavior of individuals in meaningful ways. Based on this evidence, we hypothesize that the social norms approach could also be applied to the context of crowdfunding with the aim to positively influence the funding behavior of backers and to selectively influence the funding success of crowdfunding campaigns.

For a norm to be effective, it must not only be salient but it must also be suitable to activate desired responses among the people it is targeted at. One way to achieve this, is to consider the motivation of target audiences before deciding on the type of normative appeal that is going to be introduced. In line with the above considerations, we propose that the extent to which descriptive appeals or normative appeals are effective in guiding peoples’ funding behavior depend on the crowdfunding environment that they are deployed to. Thus, when applying social norms to the context of crowdfunding, we have to take into consideration that crowdfunding encompasses various types of fundraising that range from collecting donations to selling equity stakes (Ahlers, Cumming and Schweizer, 2012). Literature mainly differentiates between four basic forms of crowdfunding: donation-, reward-, lending-, and equity-based crowdfunding (Griffin, 2012). In donation-based crowdfunding, crowdfundees donate money without expecting monetary compensation (Ahlers et al., 2012). In contrast to donation-based crowdfunding, in reward-, lending-, and equity-based crowdfunding, crowdfundees receive various forms of compensation. Reward-based crowdfunding offers funders a non-financial benefit in exchange for their investment (Ahlers et al., 2012), ranging from signed autograph cards from celebrities to pre-orders, early access, or discounts on products. Lending-based crowdfunding is another model where funders receive a fixed periodic income and expect repayment of the principal (Ahlers et al., 2012). Equity-based crowdfunding provides investors with receiving some form of equity or equity-like arrangements (e.g., profit-sharing) throughout the venture they support (Ahlers et al., 2012).

For the purpose of this paper and to simplify matters, we argue that the four forms of crowdfunding can be subsumed to two types. In one type - we will refer to this type as “incentive-based crowdfunding” - crowdfundees are offered some sort of incentive. In the second type – we will refer to this type as “donation-based crowdfunding” – crowdfundees will be offered no material reward. Given this fundamental difference, we assume that people across these two types of crowdfunding differ largely with regard to their motivations. To account for these motivational differences, we plan to test our normative appeals in two different settings. Thus, we want to make sure that normative appeals are applied to the context where they can unfold their full potential. In other words, norms should be directed toward the people they will most likely appeal to and affect in terms of their funding behavior.

3.1 Social Norms in Donation-Based Crowdfunding

In donation-based crowdfunding, crowdfundees usually donate money without expecting monetary compensation (Ahlers et al., 2012). From the absence of payoffs can be inferred that people participate in this type of crowdfunding because they want to do something good or because they want to help others. An example for a donation-based crowdfunding platform is betterplace, which allows individuals and organizations to start a fundraiser, collecting donations mostly for social causes. Based on this, it seems safe to assume that people who are participating in donation-based crowdfunding are primarily driven by altruistic and philanthropic motives. Since injunctive appeals are believed to guide actions by evoking moral sentiments – as outlined above -, we expect them to be a helpful tool in encouraging funding in donation-based crowdfunding. We therefore implicitly assume that in an environment, in which altruistic motives prevail, people should be more readily adhere to norms that activate their moral sentiments. That such a norm might be effective is further supported by evidence showing that the use of injunctive appeals encouraged people to engage in pro-social behavior (Goldstein et al., 2008). For example, people who were confronted with an injunctive norm, conveying that pro-environmental
behavior is appreciated, more often engaged in curbside recycling behaviors (Cialdini et al., 1991). This leads us to propose the following hypothesis:

**H1:** The introduction of social norms in the form of injunctive appeals positively influences people to fund a campaign in donation-based crowdfunding.

### 3.2 Social Norms in Incentive-Based Crowdfunding

In incentive-based crowdfunding, crowdfundees usually receive a benefit in exchange for their investment. From the existence of rewards can be inferred that people participating in this type of crowdfunding are motivated to some extent because they are entitled to receive some kind of reward. An example for an incentive-based crowdfunding platform is Kickstarter, which allows individuals to support projects they are interested in and that they believe in. In return people are offered rewards in the form of tangibles or intangibles. Based on this, it seems safe to assume that people who participate in incentive-based crowdfunding are primarily driven by rational and strategic motives. Since it is argued that descriptive appeals convey what might be the most effective behavior in a particular situation, we hypothesize that they might be an effective tool to encourage funding in reward-based crowdfunding. Our belief is supported by research showing that people who participate in reward-based crowdfunding are mainly guided by rational motives (Zhang and Liu, 2012; Kuppuswamy and Bayus, 2014). We therefore implicitly assume that in an environment in which reward orientation is predominant, people should more readily adhere to norms that activate their rational sentiments. This leads us to propose the following hypothesis:

**H2:** The introduction of social norms in the form of descriptive appeals positively influences people to fund a campaign in incentive-based crowdfunding.

### 4 Methodology

**Research Approach**

To test our hypotheses, we aim to conduct a laboratory experiment (see Field and Hole, 2002; Creswell, 2013). We chose the method of the experiment as it allows us to closely examine participant’s behavior, while at the same time controlling for other influencing factors, such as different seeding levels or varying campaign content. Thus, by conducting an experiment we are able to derive a clear causal link between the introduced artefact (i.e., the normative appeals) and people’s funding behavior (Creswell, 2013). The experiment is designed as a randomized 2x2 factorial design experiment. People will therefore be randomly assigned to either one of four possible conditions (see Table 1). Manipulation will vary along two dimensions, namely if people are assigned to the control group (i.e., the group receiving no appeal) or the treatment group (i.e., the group receiving a normative appeal) and if people are assigned to a mock-up of a donation-based crowdfunding platform or a mock-up of a reward-based crowdfunding platform.

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<th>Table 1: 2x2 factorial design</th>
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<td><strong>Group</strong></td>
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Procedure

We aim at recruiting students from a German university. Based on a calculation and assuming a medium effect size (i.e., a Cohen’s d of 0.25), the experiment will be conducted with a total N of at least 270 subjects. Subjects will be mainly recruited during two university courses. As reward for their participation students will be granted additional course credits. Based on random assignment participants will be then assigned to one of the four conditions discussed earlier.

Subsequently, students will be provided with the following vignette:

The chair of information systems managed to generate a moderate surplus this year. The chair now decided that it wants to give students the possibility to allocate this money on a project that is part of the university-owned crowdfunding platform. We will therefore provide each student with 100 credits that equal 100 euros. Please feel free to allocate any amount of credits you consider appropriate for supporting the campaign. However, be aware that you must not spent any credits on the campaign if you do not like to.

After being introduced to the vignette, participants will be given the opportunity to spend their credits according to their preferences. In order to create a more life-like experience, participants are additionally given the option to refrain from funding. This is a necessary step to avoid creating a situation that forces participants to spend money on a campaign thereby leading to biased results. By allowing participants to allocate credits, the study tries to capture participant’s actual funding behavior. Thereby, the number of people funding a campaign as well as the amount of funding granted to the campaign constitute the dependent variables.

Materials and Manipulation

The materials and manipulation will vary depending on the experimental conditions. People who are assigned to the mock-up of the donation-based crowdfunding platform will be presented with a campaign dealing with a social project as it can be typically found on a donation-based crowdfunding platform. Conversely, participants who are assigned to the mock-up of the reward-based crowdfunding platform will be displayed a campaign as it can be typically found on a reward-based crowdfunding platform. Thus, the campaign displayed in the reward-based crowdfunding mock-up will offer a reward for participation. The reward will be in the form of a giveaway (i.e., a cup displaying the university branding).

In addition to that, participants will be either assigned to the control group or to the treatment group. People participating in the control group will be confronted with no appeal. Participants in the treatment group will be confronted with a normative appeal. The appeal will be represented in the form of a text box referring to the campaign that participants can support. Moreover, appeals vary in line with the type of crowdfunding mock-up people are assigned to. Thus, the treatment group confronted with the donation-based mock-up will be displayed a campaign that is accompanied by an injunctive appeal stating: “Your sponsorship is appreciated! Please help entrepreneurs to start a new business”. The treatment group confronted with the reward-based crowdfunding mock-up will be displayed a campaign that is accompanied by a descriptive appeal stating: “Four out of 5 people sponsored a similar campaign”. To increase the effectiveness of the introduced appeals we made sure to formulate them in line with the social influence strategies proposed by Cialdini (2001). To avoid that differences between the control and the treatment groups are caused by other factors than the normative appeals, we make sure that campaign content and campaign characteristics (i.e., the required funding goals, existing seeding levels and promised rewards) are alike in both conditions.

Control Variables

After participants have allocated their credits to the campaigns they will be asked to fill out an additional questionnaire. The purpose of the questionnaire is to control for other confounding variables such as participants demographics and prior crowdfunding experience. In addition to that, the questionnaire will measure participant’s motivation orientation. This is to control the relationship between crowdfunding
type and participants’ motivations that we established earlier. Thus, we propose that participants who participate in donation based crowdfunding are intrinsically motivated and therefore might be more susceptible to injunctive appeals. Conversely, we hypothesize that participants in reward-based crowdfunding are more extrinsically motivated and therefore might be more susceptible to descriptive appeals. To capture participant’s motivational orientation, the work preference inventory by Amabile (1994) is used and adapted to our study. In addition to that, we will measure participant’s susceptibility to persuasion in general. In doing so we will employ a 12 item questionnaire developed by Kaptein et al. in 2009.

**Expected Results**

The aim of this research is to find out if certain information cues in the form of normative appeals (i.e., injunctive as well as descriptive appeals) can encourage people to fund selected campaigns. Thus, we expect that descriptive appeals when introduced to an incentive-based crowdfunding platform encourage participants to fund the campaign they refer to. Similarly, we expect that injunctive appeals when introduced to a donation-based crowdfunding platform encourage participants to fund the campaign they refer to. An analysis of variance (ANOVA) will be conducted to determine the effects of normative appeals on the funding behavior of subjects. Differences among the experimental- and control-groups will be evaluated based on the number of participants supporting a campaign as well as the relative funding amounts granted to the campaigns.

**5 Expected Contribution**

Our research contributes to the body of knowledge in two ways. First, we aim to examine social normative appeals as a new form for influencing backers’ behaviors’. We thereby intend to implement normative appeals in an ethical manner. Thus, by introducing these appeals, our aim is not only to provide intermediaries with a tool to influence funders, but also to help funders of crowdfunding campaigns make more sensible investments and donations (Kaptein, De Ruyter, Markopoulos and Aarts, 2012). Second, it is our goal to explore if these social normative appeals can be effectively used as an active design element on crowdfunding platforms. Therefore, we hope to show that these appeals can be used to positively influence the funding outcome of individual campaigns. If our proposed hypotheses prove true, this would allow intermediaries to foster campaigns more selectively and purposefully. In doing so, we further want to propose a new research perspective. Looking at the current state of crowdfunding research, it becomes evident that the discipline is still at the very beginning. As mentioned, first empirical studies tried to answer fundamental questions such as who is participating in crowdfunding (Mollick, 2014), why and for what reasons people engage in crowdfunding (Gerber et al., 2012; Ordanini, Miceli, Pizzetti and Parasuraman, 2011), and when people are most likely to engage in crowdfunding (Kuppuswamy and Bayus, 2014). While these prior studies helped to get a proper understanding of the field and the dynamics of crowdfunding they do not provide any insights on how current crowdfunding platforms can be further improved. This research in progress tries to address this shortcoming by applying a design science perspective. Since crowdfunding is usually conducted over the Internet, we argue that crowdfunding platforms bear a high potential for design changes that could potentially influence the behavior of funders in purposeful ways and ultimately result in more efficient crowdfunding processes.
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