



Does the Possibility to Make Equity Investments in Crowdfunding Projects Crowd Out Reward-Based Investments?

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Despite crowdfunding's increasing popularity as a vehicle for financing early-stage ventures, we still know relatively little about the mechanisms that drive individuals to pledge and invest via such online platforms. We explored the extent to which financial or nonfinancial motivations determine the decision to invest for equity or to pledge. In addition, we also looked at whether having invested for equity can crowd out individuals' motivation to keep a pledge into the same project. Our results show that nonfinancial motives play no significant role. Furthermore, we find that having invested for equity is a positive predictor of keeping a pledge.

Introduction

Crowdfunding is an emerging form of entrepreneurial finance, which allows raising funds from a large number of individuals via online platforms (Agrawal, Catalini, & Goldfarb, 2013; Lambert & Schwienbacher, 2010; Mollick, 2014; Ordanini, Miceli, Pizzetti, & Parasuraman, 2011). Even though crowdfunding in its current form originated as a platform for raising funds in the creative and social sectors in exchange for nonmonetary rewards (Hemer, 2011), with the introduction of the Jump Start Our Business

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Startups Act (JOBS Act) in 2012 and its subsequent provisional approval by the Securities and Exchange Commission in 2013, it has become a legal alternative for early-stage *equity* investments and a viable tool for raising seed capital. Even though the regulations on crowdfunding vary across countries, a few projects have successfully raised funds through both equity and non-equity platforms already (see Collins & Pierrakis, 2012). It is argued that these two platform types tend to attract different investors (cf. Belleflamme, Lambert, & Schwienbacher, 2014). Contemporary research on crowdfunding, however, falls short of explaining their motivations to invest on each of these platforms, even if the current popular expectation is that an increasing number of platforms will offer a mix of both funding options to its members. We aim to address this gap in the literature on crowdfunding by analyzing the motivations of investors on reward-based and equity-based platforms and exploring the impact of having a project on both types of platforms on investors' decision to support it.

To address these questions and map the interplay between financial and nonfinancial incentives, we use self-determination theory (SDT) (Deci & Ryan, 1985; Ryan & Deci, 2000a) and its extension cognitive evaluation theory (CET) (Deci, Koestner & Ryan, 1999; Deci & Ryan, 1985). Contemporary research on crowdfunding has shown that reward-based (non-equity) crowdfunding has been very successful in raising money from individuals who have not been motivated by financial return incentives (Collins & Pierrakis, 2012). The introduction of the JOBS Act, on the other hand, has come with the expectation that the opportunity for financial return in early-stage investments will increase individuals' interest in supporting projects and hence also help close up the equity gap (Clarke, 2005) for pre-revenue ventures. At present, the popular assumption is that individuals on reward-based platforms are predominantly (albeit not exclusively) driven by intrinsic motivation to fund projects, whereas those on equity-based platforms are driven by extrinsic (financial) motivation (Collins & Pierrakis, 2012) or a combination of both extrinsic and intrinsic motivations (Hemer, 2011). However, we still have limited understanding of (1) the relative role of financial and nonfinancial motives in both equity and reward-based crowdfunding and (2) the impact that the juxtaposition of these two motives may have on "crowding out" investors' interest in reward-based campaigns.

To explore this research question, we focused on Symbid,¹ the largest equity crowdfunding platform in the Netherlands, and invited all their registered investors to participate in a quasi-experiment. Our survey was administered directly by the platform itself and aimed at mapping investors' motivations to engage in reward and equity-based crowdfunding platforms, as well as at exploring the subsequent impact of the different motivations on their decision to pledge or invest for equity into a given project. In order to survey participants about their primary motivations to pledge and to invest, we first developed a scale building upon and extending existing accounts of the drivers to engage with crowdfunding. Afterward, we presented investors with the campaign of a reward-based project and asked them to evaluate it and decide whether they would pledge to it. In the next step, we informed them that the same project is also available on an equity crowdfunding platform and asked whether they would invest and why. In the last step, we told participants that they can have the opportunity to reconsider their investment decisions so far (given their current knowledge of both campaign options) and decide again the amount they want to keep in the project as a pledge, if any, and the amount they want to invest in it as equity, if any.

1. This platform accepts not only equity-based projects but also reward-based campaigns, as well as (more rarely) mixed-rewards campaigns.

Our results show that the decision to pledge to a project was positively predicted by individuals' interest in receiving rewards, as well as by their need to trust the entrepreneur, whereas nonfinancial motives such as help others and support ideas or be a part of a community were not significant. However, the decision to invest in equity was positively predicted only by financial return motivations. Lastly, we found that contrary to the predictions of cognitive evaluation theory (Deci & Ryan, 1985), where the presence of extrinsic motivators is expected to crowd out intrinsic motivation, participants who initially invested for equity into the project were significantly more likely to actually keep a pledge into it as well, rather than to redistribute their investment into the equity campaign only. Hence, in addition to getting a better insight into the motivations of investors on crowdfunding platforms, we also contribute to research on motivation theories and more specifically to work addressing the interplay between financial and nonfinancial incentives.

The paper unfolds as follows. We first outline the recent developments in crowdfunding and define the main types of platforms. Then, we present the motivation framework that we use in the paper and introduce our hypotheses. Last, we present our results and discuss the key contributions of this work.

Crowdfunding

In September, 2012, Oculus Rift, a project which offers a next level immersive virtual reality headset for video games, raised \$2,437,429 from an initial target of \$250,000 on Kickstarter from 9,522 backers. In March 2014, Facebook announced that they agreed to acquire the company, resulting in many disgruntled backers posting statements, such as "I backed Oculus Rift and all I got was this lousy T-shirt"² and "The \$40,000 T-shirt." In another example, Zach Braff, starring in the TV series "Scrubs," managed to raise nearly \$2 million from Kickstarter fans for a new comedy, after which he turned to traditional financing (Worldview Entertainment), getting an additional \$8 million for the film.³ Many backers have subsequently questioned the fairness of such a decision, given the potential impact it may have on their original terms about the film. On the other hand, Waka Waka,⁴ a company which develops solar lights and chargers, has successfully navigated the crowdfunding process from reward-based through equity-based and back to reward-based campaigns in raising finance for their projects. Currently, there are several different crowdfunding models, which vary according to the incentives that they offer to the crowd. The literature distinguishes among donation-based, reward-based, lending-based, and equity-based crowdfunding (De Buysere, Gajda, Kleverlaan, & Marom, 2012; Lambert & Schwenbacher, 2010). The donation-based model offers a donor contract without any physical or monetary rewards; the reward-based model offers non-pecuniary tangible (e.g., product) or intangible (e.g., reputation, identity) rewards in exchange; the lending model provides a credit contract, in which there are no intermediaries (i.e., no banks involved); and finally the equity-based model offers a shareholding contract or a revenue sharing scheme (De Buysere et al., 2012). Projects can come from different industries, including categories such as art, dance, theatre, film and video, publishing, and technology, to name a few. So far, over one million successful campaigns have been conducted via

2. http://www.huffingtonpost.com/2014/03/26/oculus-rift-kickstarter_n_5034511.html.

3. <http://www.theguardian.com/film/2013/may/16/zach-braff-kickstarter-controversy-deepens>.

4. <http://www.supersizeblogging.com/equity-crowdfunding-for-entrepreneurs/>.

crowdfunding platforms in 2011, raising close to \$1.5 billion in 2011 and nearly \$3 billion in 2012 (Crowdsourcing Organization, 2012). With the increasing presence of equity crowdfunding platforms, the question of the potential crossover between equity and reward-based models and the sustainability of the latter model in its current form inevitably needs more attention.

Given the various legal issues that have so far largely restricted equity crowdfunding, the most widespread crowdfunding model is still the reward-based one. Its popularity has been attributed to the fact that crowdfunders value the intrinsic enjoyment they extract from participating in a crowdfunded initiative, such as the social reputation, shared identity, or other private (yet non-pecuniary) benefits. To illustrate, supporters in a reward-based crowdfunded project can be offered the product (as a prepurchase like in the case of Oculus Rift), a signed customized copy of an unpublished album of a band (via Sellaband's platform, for instance), or any other nonmaterial perks (such as having one's name on the list of "supporters" of a social cause), etc. According to a recent overview, Agrawal et al. (2013) reported that some of the main characteristics of such platforms (pertaining mostly to the reward-based ones) are that the big numbers in terms of turnover come mostly from a few bigger players, such that 1% of the projects account for 36% of the funds. In addition, there seem to be patterns of *herding* behavior, with people being more likely to support projects that have already reached 80% of their target (Burtch, Ghose, & Wattal, 2013). Although this reward-based model is still leading in popularity, the equity-based model is currently expected to gain its way up and bypass the reward-based one subsequent to the introduction of the JOBS Act in 2012.⁵ More specifically, the JOBS Act allows ventures to "raise up to \$1 million every twelve months" by selling their stock (or other unregistered securities) to both accredited and unaccredited investors, provided that the sales are made through registered intermediaries (Thomas, 2014, p. 62). The expected growth of equity-based platforms is based on the assumption that investors are more motivated to invest if they can receive better financial rewards from their investment. This is very different from incentives given by the reward-based crowdfunding platforms, where the reward is limited to receiving the product itself or to a personal recognition for financing the venture. However, the question that emerges is whether the presence of equity-based platforms will have a strong impact on the success of the reward-based ones, and, whether the equity, as a strong extrinsic motivator, may simply crowd out other motivations and decrease investors' willingness to support projects in the absence of pecuniary rewards. In order to understand these questions, we need a more in-depth insight of the financial and nonfinancial motivations to invest and to pledge in crowdfunded projects via online platforms. In particular, we want to understand how financial and nonfinancial motives predict individuals' involvement on either type of platform. In addition, we want to explore whether equity platforms attract a completely different "crowd," or investors may choose to be active on both types of platforms, and how the presence of a campaign on both types of platforms can affect backers' behavior. To address these questions, we will first of all outline the different types of motivations of crowdfund investors in the section below.

5. Even though the Act was signed in April 2012 with the purpose of relaxing restrictions on the solicitation of securities, the Securities and Exchange Commission (SEC) delayed the publication of the regulations, necessary to protect the "crowd" from fraud and undelivered projects, and only lifted the general solicitation ban in July 2013. The exact conditions under which the equity model would operate in the United States, however, continue to be under development.

Motivation to Invest in Crowdfunding Projects

The popular perception in the crowdfunding community has been that reward-based platforms are more likely to attract individuals who invest because they “like” and “enjoy” a project or an initiative and want to “support” it (Schwienbacher & Larralde, 2010), whereas equity-based platforms are seen as attracting people who are largely interested in backing projects for a return on their investment. Research in psychology, based on self-determination theory (Deci & Ryan, 1985) has long explored the different types of motivation that people can have for their actions, addressing the impact of intrinsic versus extrinsic motivations on individuals’ behavior (Ryan & Deci, 2000b). Being intrinsically motivated to perform a task (without receiving any external rewards or pressures) is considered healthier and more beneficial for the individual as it facilitates exploration-based behaviors and the ability to extend one’s capacities (Ryan & Deci, 2000a). An activity can be seen as intrinsically motivating if it contains certain features that make it enjoyable, or if it provides satisfaction of innate psychological needs (Ryan & Deci, 2000b). The former case stems from the tradition of operant conditioning (Skinner, 1953) and considers individuals’ behavior as driven exclusively by rewards, whereas the latter case stems from learning theory (Hull, 1943) and considers individuals’ behavior as driven by physiological needs instead. According to these two approaches, an activity is perceived as intrinsically motivating if it represents the reward itself (thus it contains elements that make it intrinsically interesting), or if it satisfies basic psychological needs (Ryan & Deci, 2000a).

Cognitive evaluation theory (Deci & Ryan, 1985), which is an extension of SDT, focuses further on intrinsic motivation and explores the factors that can enhance or undermine it. More specifically, Deci and Ryan (1985) and Ryan and Deci (2000a) have argued that intrinsic motivation stems from satisfying a set of three innate psychological needs, namely need for competence, autonomy, and relatedness. Competence represents the perceived self-efficacy in performing a task (Harter, 1978), autonomy captures the self-determination of the individuals’ behavior (deCharms, 1968), and relatedness addresses whether the behavior is valued by others to whom the individual feels connected (Baumeister & Leary, 1995; see also Ryan & Deci, 2000b, for an overview).

Recent work by Allison, Davis, Short, and Webb (2014) has introduced CET in the context of micro-lending by showing that the narratives that entrepreneurs use can affect whether backers have a financial or a social focus when evaluating the loans. We extend the application of SDT and CET in the setting of crowdfunding and use it as a lens to explain investors’ motivations to back projects on reward-based and equity-based platforms, as well as to map their behavior when confronted with a project offered on both types of platforms. Despite the increasing presence of projects, which collect funds via both channels (either simultaneously or sequentially), to the best of our knowledge, no work has so far systematically explored the implications of this on investors’ funding choices, and we aim to address this in the paper.

Current inductive research on the behavior of backers on reward-based platforms has singled out four key motivations for investors’ willingness to pledge to a crowdfunding project, namely collect rewards, help others, be a part of a community, and support a cause (Gerber, Hui, & Kuo, 2012). To the extent that “collect rewards” refers largely to individuals’ interest in being the first to have an object, it can be considered as an extrinsic financial (value for money) motive, whereas the other three as intrinsic motives instead. First, “help others” explains the desire to help people and allow them to realize their objectives; “be a part of a community” addresses individuals’ desire to belong within a certain community and interact with the founders and similar-minded backers; “support

a cause” addresses the desire to help a project get off the ground and see it successfully taking off; and last, “distrust of use of funds” considers whether investors feel comfortable that entrepreneurs will handle their funds well (Gerber et al., 2012).

Hence, pledging money to a project that is appealing and getting in return some recognition by the social community can be seen as intrinsically motivating and delivering a “symbolic” reward (or even the material reward) associated with the transaction. However, this transaction is not driven by return expectations as explained by cognitive evaluation theory. According to previous research on intrinsic motivation, individuals who pledge to projects may be expected to do so because they enjoy getting involved in and supporting projects that offer the perception of a shared identity (Muniz & O’Guinn, 2001), social image, social approval, and reputation (Andreoni, 1990; Titmuss, 1970), or that give them the ability to pretest a novel product (Ordanini et al., 2011). Furthermore, as the reward may have little objective economic value over the subjective financial value for the person who pledges (e.g., in the case of a name plaque) or includes a major risk of not receiving it, pure utility (value for money) motivations might play less of a role than nonfinancial motivations in the decision to pledge. Hence, nonfinancial motives are expected to play a major role in explaining why people decide to pledge on a reward-based crowdfunding platform:

Hypothesis 1: Intrinsic nonfinancial motives (help others, be a part of a community, trust others) will be a stronger determinant of the decision to pledge in a reward-based crowdfunding project than extrinsic financial motives (collect rewards).

Shifting to equity-based platforms, on the other hand, we expect that the key driver for investing in a project for equity will be the extrinsic financial return motivation. When extrinsically motivated, individuals will engage in a behavior if it has a certain instrumental value in obtaining a desired (separate) outcome (Ryan & Deci, 2000b). In particular, if equity backers can be conceived as traditional investors, then we would predict that, *ceteris paribus*, their focus on financial return will have the strongest impact on their decisions to invest. We do not exclude, however, that nonfinancial motivations can also play a role in this decision. Building on the literature on private equity investments and business angels, we know that very often other motivations, aside the financial ones, could explain their decisions. For example, business angels have been shown to invest more opportunistically, as they do not necessarily estimate internal rates of return (Mason & Harrison, 2008; Mason & Rogers, 1997), and to be much more involved in the ventures in which they invest, often motivated by personal factors, such as enjoyment and fun, rather than return (Benjamin & Margulis, 2000).

Nonetheless, we still expect that the financial motivations will be more important than the nonfinancial ones in an investment for equity and thus propose the following hypothesis:

Hypothesis 2: Extrinsic financial motives (return on investment) will be a stronger determinant of the decision to invest in an equity-based crowdfunding project than intrinsic nonfinancial motives (help others, be a part of a community, trust others).

Lastly, we also wanted to explore the impact of knowing that the same project is available both as an equity offer and a pledge offer on an individual’s final investment decision. In particular, we considered whether knowing about the presence of an equity campaign would reduce investors’ willingness to keep a pledge in the project as well, or would actually crowd them “in,” thus making it more likely that they back it via both

channels. The interplay between intrinsic and extrinsic motivation has been explored by cognitive evaluation theory (Deci & Ryan, 1985) and referred to generally as the *hidden cost of rewards* (Lepper & Greene, 1978; Lepper, Greene, & Nisbett, 1973). Research within this tradition has shown that if an individual is intrinsically enjoying and hence motivated to do an activity, offering that person a monetary compensation in return changes his or her perception of the task, and results in much lower enjoyment and motivation for subsequent engagement (see also Bem, 1965). The impact of having monetary and nonmonetary incentives presented simultaneously to decision makers has been further explored by Heyman and Ariely (2004) who have shown that in such cases individuals tend to perceive the task predominantly through the monetary lens, despite the presence of nonmonetary information. The juxtaposition of pecuniary and non-pecuniary rewards changes the mental framework from social to monetary, hence letting monetary/marketplace norms prevail and inducing a money-driven decision-making approach.⁶ In addition, it has also been argued that the mere presence of monetary information can switch the individual's mindset from a focus on a social market to a focus on a money market exchange, hence activating a "market"-oriented judgment mode (Fiske, 1992). This is especially relevant in the context of crowdfunding as it could not only crowd out the motivation to invest, but also potentially affect how individuals evaluate the project and their willingness to provide additional support to the venture. More specifically, as indicated by Caruso, Vohs, Baxter, and Waytz (2013), thinking about money can influence people's beliefs, such that merely activating (or making salient) the concept of money is sufficient to induce a so-called "market-pricing mindset" (p. 13), whereby individuals evoke transactional and cost-benefit calculations in their behavior (see also Fiske; McGraw & Tetlock, 2005). In such cases, however, the role of extrinsic (financial) rewards typically has been made contingent upon the performance of the individual on the given task. In the context of crowdfunding, it is less clear how this could play out, given that rather than contingent on performance, the effect hinges mainly on the activation of monetary or financial return aspects.

Hence, we expect that having already seen and considered an equity offer for the same crowdfunding project, individuals will decrease or remove any initial pledge they made to the project because of the presence of the extrinsic (financial) reward.

Hypothesis 3: Individuals who made an equity investment in the project will be less likely to keep a pledge in it as well when presented with both campaign options, as compared to those who did not make an equity investment.

Research Method

Sample

The purpose of our study was to focus on equity crowdfunding investors and explore their motivations to invest, as well as their response to opportunities that are available on

6. Even though Heyman and Ariely (2004) have shown that this effect is also observed when the non-monetary rewards are monetized (that is, if participants are given nonmonetary rewards but then are also told how much they cost), we expect that this will not necessarily hold in the same way on reward-based crowdfunding platforms. The reason for this is that in the former case, participants are told the monetary value of their reward (which is typically low and can also trigger feelings of being underpaid), whereas in the latter, they consciously decide to make the pledge even if they can see that the amount they offer may be much higher than what they will receive (if received at all).

both reward-based and equity-based platforms. Therefore, we surveyed all registered investors on the largest equity crowdfunding platform in the Netherlands, Symbid. The platform typically offers equity-based projects, however it also lists projects on a pledge-based model, as well as projects that offer the possibility to choose between investing for equity or pledging to a given campaign. Therefore, investors registered on this platform could have been exposed to each of these models and could have supported projects both with a pledge and with an equity investment. The invitation to participate in our survey was sent out to all registered and active investors on the platform via Symbid's newsletter, which solicited their participation directly. The survey reached 454 registered investors (based on the number of opened links), of which 155 returned a fully completed survey, hence resulting in a 34.14% response rate. The average age of the participants in our sample was 49.2, where 26.5% of them were female and 73.5% were male investors. In addition, 51.6% of all participants reported having started their own company and 5.2% having set up their own crowdfunding campaign in the past. We also asked our participants about their previous involvement with donations (such as Red Cross, etc.) and 88.4% reported that they have donated in the past, whereas 21.9% reported having pledged to crowdfunding projects on non-equity platforms. In terms of their previous investment history, 67.1% reported having invested in stocks in the past, and 45.8% reported having also funded start-up companies via more traditional routes (such as angel investing).

Stimulus Material

Participants in the survey were invited to watch the campaign of a real technology-based project, which offered an innovative product (a multipurpose and energy-efficient lighting solution). The project was originally listed on Kickstarter; however, any reference to Kickstarter in the video was removed during the experiment to avoid any unaccounted effects. As part of the experiment, participants were presented with the project first as a reward-based opportunity and subsequently as an equity opportunity. In both the reward and the equity scenarios, the amount sought by the campaign was the one originally listed on Kickstarter, namely €100,000.⁷ In order to ensure that the design of the campaign is as realistic as possible, we used the original pledges as developed by the campaign founders. With respect to the equity deal, we used the same total amount sought as before (€100,000); however, rather than offering them rewards for their pledges to the project, we told them they could get up to 10%⁸ equity for their investment into the project. Aligned with the regulations of the Symbid platform, participants could invest as little as €20 into the project. None of them reported having seen or heard about the project we used in the study prior to the experiment.

Procedure

The survey data were collected over a period of 2 weeks. The survey was programmed using Qualtrics, and the experiment was conducted directly via Symbid's platform. Participants were initially shown the project's campaign as a reward-based opportunity (hence, they were shown the campaign and offered a choice among a set of pledges, with

7. To adapt to a European sample, we listed the project in euro, rather than in dollars.

8. We selected this percentage equity as it was reported to be the average amount offered by campaigns listed on Symbid (based on their aggregate data).

which they could support it). Furthermore, participants were also informed that if they did not want to pledge into the project, they could select among a number of other potential options, such as: savings account, high-yield stocks, government bonds, investment in a different type of crowdfunding project, etc. Subsequently, in a next screen of the experiment, participants were told the following: “Consider that after some browsing on other crowdfunding platforms, you have discovered that the SAME project is available on another platform and actually offers you EQUITY in return for your investment. The founders are offering 10% equity in their venture and looking to raise €100,000. Hence, if you invest €100, you will get 0.001% ownership of their venture. If you invest €100,000, you will get 10% ownership of their venture.” Then, they were given the possibility to decide whether they want to invest and to indicate the exact amount. Participants who opted not to invest at the 10% level were subsequently offered the option to invest at 20% and at 30% equity for the same asking amount. Afterward, they were presented with the last step of the study, whereby they were given the following instructions: “If you can RECONSIDER your investment strategy so far, knowing about both campaigns, what is the amount that you want to give as a pledge (if any) and what is the amount you want to invest as equity (if any)?” Participants were then asked to indicate the final amount they would like to keep in the project as a pledge and the final amount they would like to keep in the project as an equity investment.⁹ Across the different steps, we thus collected information not only about whether or not participants want to pledge and to invest for equity, but also about the exact amounts they would like to commit to the project across the different offerings and their final investment decisions. In order to control for the fact that some participants may simply indicate that they want to invest an amount into the project, which is disproportionately higher compared to their average actual investments on the platform, we also asked them initially for the average amounts that they have pledged and invested for equity in the past. We were able to verify these self-reported average investment amounts from the data provided by the platform itself. Based on this information, we excluded six participants from the analyses, as the amounts that they indicated as pledges or equity investments were significantly higher as compared to their average past investments. In addition, the amounts indicated by these participants were also significantly higher than the average amounts indicated by the current sample in the study, and thus we removed them from further analyses.

Measures

Control Variables. We used age, income after taxes, gender, whether individuals have donated in the past, whether they have invested (outside crowdfunding), whether they have started their own business, and the average amounts¹⁰ they have invested or pledged via crowdfunding platforms in the past as control variables in our analysis. A table with summary statistics and a correlation matrix with all variables is available in Appendix 1.

Dependent Variables. In the current study, we focused first on the “decision to pledge” and recorded both whether they want to do so and the exact amount they want to pledge.

9. This is reported throughout the paper interchangeably as pledge/equity at time 2 or final pledge/equity decision.

10. To account for skewness, we use the log of the average amount pledged and invested in all regressions.

Afterward, we recorded whether participants wanted to invest in the project for equity, collecting their decision at 10% and 30% equity. These variables are indicated as “equity 10%” and “equity 30%” in the analyses. Finally, after participants were aware of both types of campaigns on which the project is listed and available, we asked them if they wanted to reconsider their strategy and decide again how much they want to keep as a pledge (if any) and how much as equity (if any). We recorded this as “pledge_final” and “equity_final” in the analyses.

Independent Variables.

Motivation Scale. At present, to the best of our knowledge, there is no scale that measures crowdfunding investors’ motivations in an accessible manner. In order to measure their motivation to support the project either with a pledge or with an equity investment, we created a scale following Gerber et al.’s (2012) inductive work on motives to engage in reward-based crowdfunding. To capture the motivation types that the authors propose, we explored in detail the interview quotes reported within their study (Gerber et al.), as well as the literature on reward-based and equity crowdfunding. We then developed a set of 17 items, which aimed to capture the five components singled out by these authors, as well as a sixth one, capturing the focus on the financial return on one’s investment (for equity campaigns). The complete scale is available in Appendix 2, and the factorial solution is provided below.

The main motivations for engaging in crowdfunding outlined by Gerber et al. (2012) were help others, be a part of a community, collect rewards, and support a cause as drivers; and distrust of a creator’s use of funds as a deterrent. Using as a reference the qualitative excerpts indicated by the authors within each of these motivation types, we created five subscales, each composed of two or three items. Here is a list of sample items from each motivation type that were used in the construction of the scale. “*Help others*” motivation: “I find it rewarding to help others realize their funding goals through my investment”; “*be a part of a community*” motivation: “I like to interact with the online community of backers and offer my advice about the project”; “*collect rewards*” motivation: “I enjoy being the first one to have a new gadget or product”; “*support ideas*” motivation: “I like to back good ideas and give founders the opportunity to retain control of their ventures”; “*trust of use of funds*” motivation: “I want to feel sure that the team knows how to handle the resources they raise for the project.” In addition, we also created a sixth category, “*financial return*” motivation, in order to capture the equity context as well. Sample items of this motivation type include “I prefer making profit by investing for equity than keeping a savings account” and “My primary goal is to generate return on my investment.” Each item was measured on a 7-point Likert scale, ranging from strongly disagree to strongly agree. In order to test how the items load on the theoretically developed dimensions, we first of all conducted an exploratory factor analysis, followed by a confirmatory factor analysis.

To conduct the exploratory factor analysis (EFA), we used a principal components method and an oblique rotation, suppressing any factor loadings lower than 0.4. In particular, we selected “Promax” as the rotation method rather than a varimax method, as the latter offers solutions, where the components/factors can be correlated. The promax method (and oblique rotation methods) are typically considered superior to the varimax options, since the latter may arbitrarily force related components to be orthogonal (for a further review, see Hetzel, 1996; Matsunaga, 2010). Furthermore, the cutoff point that we have selected (0.4) is well aligned with conventional standards (Park, Dailey, & Lemus, 2002). Based on the analysis (see Appendix 2), we find a five-factor solution (with eigenvalues greater than 1), which explains 64.78% of the variance. Even though different

rules exist as to how many factors should be retained (see Hayton, Allen, & Scarpello, 2004), we retained a five-factor solution as it fit relatively well with the original classification of the items within motivation types, and was further supported by the scree plot solution. In order to interpret the factor solution, we focused both on the pattern matrix and the structure matrix, following the guidelines of Henson and Roberts (2006). Both pattern and structure matrix offer similar and comparable solutions and hence we proceeded with the interpretation, using the pattern matrix. We can see that the items from “helping others” and “supporting ideas” loaded onto the same factor, whereas the items from the rest of the motivation types loaded onto individual factors. Only one item, “I enjoy using new types of investment channels to back projects” loaded both on the financial factor, as well as on the support factor. Given that its primary loading was 0.858 and the secondary loading 0.419, we followed the guidelines by Matsunaga and excluded this item from further analysis.¹¹

To further check whether our five-factor solution fits the data well, we conducted a confirmatory factor analysis (CFA). CFA typically applies a maximum likelihood extraction procedure in order to establish the initial solution. In order to control for the suitability of the items for a factor analysis, we used Bartlett’s test of sphericity and the Kaiser–Meyer–Olkin measure of sampling accuracy. We find that the Bartlett’s test is significant ($p < 0.001$), which rejects the hypothesis that the data produce an identity matrix (see Nunnally & Bernstein, 1994). Furthermore, the sampling accuracy measure was 0.75 (16 items), which is above the minimum required value of 0.6, hence providing further support that the data can be used for factor analysis. To determine the fit of our five-factor solution with CFA, we consult the recommended goodness-of-fit statistics, namely root mean squared error of approximation (RMSEA), comparative fit index (CFI), and Tucker–Lewis Index (TLI). Our RMSEA is 0.05, which is in line with the recommended level of RMSEA as lower than 0.06. Furthermore, the CFI is equal to 0.936, and the TLI is equal to 0.919, which are above the minimum recommended level of 0.9 (see Hu & Bentler, 1998).¹² Based on these analyses, we created five main motivation type scales, whereby “belong to a community,” “trust of the use of funds,” and “collect rewards” remained with their original items, the items from “helping others” and “support ideas” were merged into one-factor scale “help and support ideas,” and the “financial return” scale was based on two items. The internal consistency of all five subscales was above the minimum recommended level of 0.7 (Nunnally, 1978) with Cronbach’s alphas equal to 0.743 for the “help and support” factor, 0.781 for the “collect rewards” factor, 0.77 for the “trust of use of funds” factor, and 0.774 for the “financial return” factor. The only exception is for the “being a part of the community” factor, with Cronbach’s alpha equal to 0.685.

11. There are different rules to decide on how to proceed with cross-loadings. In our case, given that the secondary loading of 0.42 is higher than the keep threshold, we exclude this item from the financial motivation subscale (see Matsunaga, 2010).

12. Given that the sample size was on the lower bound of the acceptable threshold, the EFA and CFA in this study was conducted on the same sample. Nonetheless, it is recommended as best practice either to split the sample and conduct EFA on one part and subsequently CFA on the other, or to conduct EFA on one sample population and CFA on another sample population. Given that our current sample size would not allow us to run the EFA on half of the sample, 102 additional responses from new investors were collected only on the motivation items in order to further test the five-factor solution. Their participation in this 5-minute survey was solicited via social media or LinkedIn directly if their contact information was not provided on the platform. The CFA on the proposed five-factor solution returned a model with a good fit based on the standard indicators reported above.

Validity Tests

Given that all the data for this study was collected from the same survey with equity investors, we conducted a Harman's single-factor test to address potential common method bias concerns. We performed a CFA to test whether all variables from the survey load on a single factor (Korsgaard & Roberson, 1995). If a simple solution (e.g., a single-factor model) fits the data well, rather than a complex one, then we could have concerns for common method bias. The one-factor model demonstrated poor fit. We also conducted a principal component analysis on all measures in the survey in order to test whether one general factor would emerge as accounting for most of the covariance in the variables. The analysis returned seven factors with eigenvalues greater than one. These results indicate that our findings are less likely to be affected by common method bias (Konrad & Linnehan, 1995). Furthermore, the Cronbach's alphas of all constructs used in our study exceed the 0.6 threshold (Bagozzi & Yi, 1988) and range from 0.6 to 0.8, which indicates a good inter-item reliability. We also tested for multicollinearity and heteroskedasticity, which did not raise points for concern.

Results

In order to test hypothesis 1, we conducted a logistic regression analysis, using the set of control variables outlined earlier (age, gender, ever donated, ever invested, ever started own business, average income after taxes, average invested for equity/average pledged) as a first step, the nonfinancial motivation factors (helping others and supporting ideas, being a part of a community, trusting the entrepreneurs) as a second step, and the personal/economic utility motivation factors (collecting rewards) as the final step in the regression. The financial and nonfinancial factors were mean centered in all regressions. We first tested the role of these factors on the initial decision to pledge to the project at time 1 (when first presented with it in the experiment). Contrary to our hypothesis 1, we find that the nonfinancial motivators (or what we refer to as intrinsic factors) are not significant in predicting whether the individual would pledge to the project initially. On the other hand, the desire to collect a reward was significant in predicting the decision to pledge, with the odds ratio = 1.515 ($p = 0.03$). Therefore, we find no support for hypothesis 1.

Looking at the decision to pledge at time 2, after the participants have been exposed to information about the presence of an equity campaign for the same project and given the opportunity to invest in it, we find that the more participants have pledged in the past to other crowdfunding projects, the more likely they are to also keep a pledge in the present project (odds ratio = 1.335, $p = 0.001$). Interestingly, we also see a significant negative effect for *help and support others* (odds ratio = 0.56, $p = 0.04$), a significant positive effect for *trust* (odds ratio = 1.95, $p = 0.007$), and no significant effect for *collecting rewards*. The results are provided in Appendix 3.

Next, we analyze the decision to invest for equity in the project. In testing this, we looked at incremental levels of equity (10% and 30%), as well as at the final decision to invest for equity (after participants were given an opportunity to reconsider their investment strategy and decide how much, if any, they want to keep as a pledge, and how much, if any, they want to keep as an equity investment). As outlined in the procedure section, participants who did not want to invest at 10% were asked whether they would consider the opportunity to invest at 20% and then subsequently at 30% for the same project. For parsimony, we report the results from the decision to invest at 10% and 30% as the results for 20% did not offer additional insights. The variable "*Decision to invest at*

30% equity” was computed by assigning a 1 to all participants who had already indicated their willingness to invest at the earlier equity levels and by adding the number of investors who joined at the 30% bracket. Afterward, participants were asked whether they would like to reconsider their investment decisions and decide again how much, if anything, they would like to keep in the project for the pledge campaign, and how much, if anything, they would like to keep in the project for the equity campaign. Hence, the final equity variable was computed by assigning a “1” to all participants who at this stage indicated they want to invest and a “0” to those who did not want to invest. We conducted the same logistic regressions as for the pledge decision, using the same control variables, the nonfinancial motivations in the second step of the regression, and exchanging the reward motivation with the financial return motivation in the third step.

Looking at the control variables, we see that the average amount that they have invested in the past is a positive predictor of the decision to invest in the 10% and 30% equity cases, with the odds ratio in the first case = 1.297 ($p = 0.009$), and in the second case = 1.277 ($p = 0.006$). We also see that in the initial decision to invest (at 10% equity), women are significantly less likely to do so, as compared to men (odds ratio = 0.297, $p = 0.019$). In the 30% case, age is a significant negative predictor of the decision to invest (odds ratio = 0.94, $p = 0.001$). Consistent with hypothesis 2, we then find that in the 10% equity condition and in the final decision to invest for equity, the *financial return* motivation is a positive predictor of the decision to invest, with the odds ratio in the former case = 1.647 ($p = 0.015$), and the odds ratio in the latter case = 1.424 ($p = 0.04$). In the case of the 30% equity offer, the financial return motivation is not significant (odds ratio = 1.22, $p = 0.216$). Furthermore, we see that across the three conditions (10%, 30%, and final decision), none of the intrinsic (nonfinancial) motivators has a significant impact. This provides support to hypothesis 2. The results are provided in Appendix 4.

Finally, in order to explore the impact of knowing about the presence of both types of campaigns (reward based and equity based) on individuals’ final decision how to distribute their financial involvement in the project, we conducted a logistic regression using the “*Final pledge decision*” as the dependent variable. Following the same logic as previously, we added the set of control variables first, then all the nonfinancial motivations, then the collect rewards motivation at step three, and lastly whether the individuals had invested for equity at time 1 (using the “*Decision to invest at 30%*”¹³ variable. We find that contrary to the predictions of cognitive evaluation theory, in our case, having invested for equity at the previous step increased the odds of also keeping a pledge into the project (odds ratio = 3.203, $p = 0.012$), hence rejecting hypothesis 3. The results are reported in Appendix 5.

We checked for multicollinearity and heteroskedasticity in each of the regressions, and there were no points of concern in either case, with the highest average variance inflation factor in the analysis being equal to 1.37.

Overall, we can see that 32.8% of the investors in our sample neither invest nor pledge, 26.2% only make an equity investment, 3.35% only make a pledge, and 37.65% opt for both an equity and a pledge. We also see that while 30.8% make a pledge at time 1, this increases to 41% at time 2.

13. Very similar results were obtained using the “Decision to invest at 10% equity” variable as well.

Additional Analyses

As an additional step of the analysis, we also wanted to check the extent to which the different motivation types also affect the actual amounts that individuals pledge or invest into the project. To test this, we ran a hierarchical regression, with the set of control variables first, the nonfinancial motivations in a second step, and the collect rewards motivation in the last step. At the initial pledge decision (when first presented with the project, time 1), we see that having invested in the past has a positive effect on the amount that individuals opt to pledge to the project ($\beta = 0.779$, $p = 0.035$). Furthermore, we find that *collect rewards* has a significant positive effect ($\beta = 0.354$, $p = 0.021$), whereas the nonfinancial motivations have no significant role. On the other hand, when we look at the effect on the final decision to pledge (whether they keep a pledge to the project, after becoming aware that an equity campaign is available and they can invest, time 2), we find that the amount pledged is again positively predicted by their desire to receive the reward ($\beta = 0.38$, $p = 0.02$), as well as by their *need to trust* motivation ($\beta = 0.561$, $p = 0.002$). In addition, we can also see that there is a significant positive effect of how much they have pledged to (other) projects in the past ($\beta = 0.227$, $p = 0.007$). Therefore, we find that both the decision to pledge and the actual amount pledged are positively predicted by the extrinsic motivation (collect rewards) rather than the intrinsic motivations (such as help others and be a part of the community). We also find that in the final decision to pledge, the trust motivation plays a significant role in predicting the actual amount pledged. These results are presented in Appendix 6.

Turning to the amounts invested for equity, we first find that the higher the individuals' *financial return* motivation, the greater the amount that they invested in the project in the 10% ($\beta = 0.476$, $p = 0.003$) and final amount ($\beta = 0.426$, $p = 0.01$) cases. None of the other motivations had a significant effect on the amount invested in the project. We can further see that the final amount invested is significantly and positively predicted by individuals' previous experience with starting-up their own business ($\beta = 0.945$, $p = 0.03$). In addition, the higher the average amount invested for equity in the past, the higher the amount invested in the 10% ($\beta = 0.331$, $p = 0.001$) and 30% ($\beta = 0.29$, $p = 0.003$) cases. The results are provided in Appendix 7.

We also explored whether there are any interactions between the financial and nonfinancial motivations in determining the decision to pledge and the decision to invest. To test for any possible interaction effects between the three nonfinancial motivations and the financial motivations, we computed interaction terms between *collect rewards* and each of the three nonfinancial motivations, as well as between *financial return* and the nonfinancial motivations. We ran the same sets of logistic regressions, using the control variables at step 1, the financial motivation and one of the nonfinancial motivations at step 2, and each of the interaction terms of the factors from step 2 at step 3 in separate regressions. We found no significant interaction effects among the different financial and nonfinancial motivations, except for a significant positive interaction between need to trust and financial return on the initial decision to invest for equity (at time 1 or the 10% equity case).

Discussion

In this paper, we explore how the presence of financial and nonfinancial motivations influence investors' decisions to pledge and to invest in a project; and how the presence of

both types of campaigns for the same project affects their final investment choices. The research question was inspired both by the passing of the JOBS Act, which allows equity investments through crowdfunding platforms, and the theoretical debate in the economics and psychology literature on the interplay between non-monetary and monetary rewards on individuals' behavior. The underlying popular hypothesis of the JOBS Act has been that monetary rewards will attract more money to crowdfunding platforms. We found that the motivation for both equity investing and reward-based pledging in crowdfunding campaigns is indeed primarily financial/utility driven rather than based on any nonfinancial motivations, such as helping others and supporting ideas or belonging to a community. This is surprising since cognitive evaluation theory has been used to explain for instance the success of micro-lending campaigns, which, upon emphasizing a more social focus in their descriptions, were able to raise higher support (Allison et al., 2014). This suggests that the financial reward in the form of an expected product is the main motivator behind a single individual's decision to pledge, while nonfinancial motivations only play a secondary role to inform the decision to pledge. Therefore, offering an attractive reward in these campaigns is crucial for a successful campaign. We further find that, contrary to what cognitive evaluation theory may predict, decision makers who invest for equity are more likely to also keep a pledge to the campaign, rather than just redirect their investment into an equity campaign once it becomes available (which would be the "crowding out" explanation). This might be explained by the fact that also financial motives explain the decision to pledge. Crowding out typically assumes that nonfinancial motivations are substituted by financial rewards when the latter are offered. However, little is known about the relation between different categories of financial rewards (e.g., receiving a product vs. getting equity into a venture). We find that they can be complementary. Investors in equity platforms would also pledge to receive a product in the same company in which they invested, or even just to support the campaign in return for a symbolic reward (such as having their name displayed on the company's website as a supporter). This finding also suggests that projects might have two strategies on crowdfunding platforms. This would not necessarily play into their disadvantage as investments seem to impact the decision to pledge as well. Probably, if an investor likes a project, he or she also likes the product of the company and would like to be a first customer. Thus, entrepreneurs on crowdfunding platforms might benefit from this. In fact, we have already seen some platforms implementing such a mixed-rewards strategy, with Crowdcube offering its equity investors to receive not only a certain ownership of the venture, but also some additional non-pecuniary perks, which could include but are not limited to the actual product.

Finally, we find that the overall motivation is financial/utilitarian. Although we do not dispute the presence of nonfinancial elements, the financial ones determine the decision to pledge and/or to invest or not. Trust is the only nonfinancial motivation that plays a role in the decision to pledge, hence appealing on the financial drivers is a key element in a successful campaign.

Limitations

In the current study, we selected a product-based campaign for our survey, rather than a social, creative, or community project. The main motivation for this choice has been that a product can easily be pitched on both equity and reward-based platforms, as we have not seen many social or community campaigns pitched on equity platforms so far. Even though the campaign that we selected had also a creative and social component to it, it is

possible that we do not find any effects for the community motivation because none of our investors was particularly interested in being active or recognized within this specific community. Nonetheless, community motivation is not necessarily limited to getting recognition and being a part of the community within a specific project, but could also extend to being on the board of good projects along with other investors and interacting with them across projects (thus, it is not industry or sector specific).

Furthermore, given that we based our motivation types on the currently available inductive research on crowdfund investors on Kickstarter (see Gerber et al., 2012), we did not include other possibly important and relevant factors, such as being motivated simply because the activity is fun or enjoyable, in our present scale. Future work should, however, take into account that excitement does play an important role in such investment decisions and hence should also be accounted for. In addition, knowing the founders is a well-accepted reason to further support the venture. We checked for this rather than adding it as a specific motivation item in the scale, in order to increase the generalizability of the “helping others” dimension (beyond just helping people that the investor is close to or knows personally). In particular, we used “Have you seen this project before?” and “Do you know any of the founders in the video that you have seen” as additional, control questions for our sample. None of the investors in this study responded positively to either of these two questions. However, given their possible importance, future research should focus on these aspects as well. A further limitation of this work stems from the fact that we have surveyed investors active on a largely equity-based platform (despite Symbid offering both equity and reward-based projects). Nonetheless, this allows us to make some interesting observations as based on our results we see that 41% of these actually opted to make a pledge to the project at the end of the experiment. Hence, the assumption that the two types of platforms (equity and reward based) attract a completely different crowd may not necessarily apply.

Future Research

Given that we are increasingly seeing campaigns that make use of both equity and reward-based platforms, future research needs to explore better how the presence of both of these options can affect investors’ willingness to support such ventures. The use of mixed models, whereby a non-monetary reward and the possibility for profit sharing or equity is offered to backers, has already been applied by several platforms, such as Sellaband, Buzzbnk, and BankToTheFuture. Even though in the present study we actually find a “crowding in” rather than a “crowding out” effect of the presence of both financial and nonfinancial incentives, it would be important to explore whether projects from different sectors, such as the social and the creative ones, can actually benefit similarly from such a dual strategy. As shown by Caruso et al. (2013), merely activating a money concept in people’s minds can make them more favorable toward existing social structures and more likely to see social inequality as acceptable. Furthermore, simply activating such a “money” concept has also been shown to reduce people’s helpfulness toward others (Vohs, Mead, & Goode, 2006). As argued by Vohs, Mead, and Goode (2008), “even subtle reminders of money elicit big changes in human behaviour” (p. 208). Therefore, although our study shows that having invested for equity has a positive impact on the decision to also pledge to the project (when both options are available simultaneously), future work should explore the exact conditions under which the presence (or bundling) of both financial and nonfinancial motivations can have a most beneficial impact on the venture in raising finance.

Conclusion

In this paper, we explored the role of financial and nonfinancial incentives on investors' willingness to pledge or invest for equity in crowdfunding projects. We surveyed equity crowdfunding investors and mapped their decisions when presented with a crowdfunding project listed both as a pledge, and as an equity opportunity. Our results show that nonfinancial motives play no significant role, both in the decision to pledge and to invest into the project for product-based campaigns. Furthermore, rather than crowding out individuals' willingness to pledge, we find that having invested for equity was actually a positive predictor of keeping a pledge to the project as well. Hence, the bundling of financial and nonfinancial incentives in crowdfunding campaigns can be an effective new strategy for raising finance on the platforms.

Appendix Appendix 1

Correlation Matrix and Descriptives

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1 Age	1																		
2 Gender	0.0324	1																	
3 Ever donated	-0.1271	0.1063	1																
4 Ever invested	0.0596	-0.3790*	-0.0533	1															
5 Ever own business	-0.0154	-0.1011	0.0647	0.0942	1														
6 Income	0.0867	-0.2367*	0.0178	0.3133*	0.1736*	1													
7 Average equity	0.0590	-0.1977*	-0.2861*	0.1808*	0.1521	0.2255*	1												
8 Average pledge	-0.0470	-0.1008	0.0485	0.1016	0.1394	0.2494*	0.3601*	1											
9 Mot: help	0.2253*	0.1403	0.1141	-0.1986*	0.0584	0.0214	-0.1239	-0.0987	1										
10 Mot: community	-0.1616*	-0.0750	-0.0556	0.0047	0.0045	0.1076	-0.0062	-0.0481	0.1280	1									
11 Mot: trust	-0.1057	-0.2413*	0.0404	0.0794	0.0248	0.0577	0.0748	-0.0955	0.2637*	0.1871*	1								
12 Mot: fin return	-0.2771*	-0.3819*	0.0492	0.4054*	0.0366	0.1341	0.2494*	0.1659*	-0.2935*	0.1447	0.3708*	1							
13 Mot: reward	-0.2562*	-0.1017	0.0912	0.2022*	0.1367	0.1670*	0.0159	0.0422	-0.0036	0.4214*	0.2017*	0.3066*	1						
14 Pledge 1: Y/N	-0.0642	-0.1190	-0.0178	0.2371*	0.1207	0.1851*	0.1028	0.1812*	-0.1424	0.0824	0.0474	0.2305*	0.2782*	1					
15 Pledge_final: Y/N	-0.1949*	-0.0546	-0.0390	0.1404	0.1830*	0.0648	0.1484	0.1752*	-0.1506	0.0438	0.1743*	0.1728*	0.2422*	0.5072*	1				
16 Equity 10%: Y/N	-0.1514	-0.3009*	-0.1241	0.1814*	0.1031	0.2318*	0.1550	0.1727*	-0.1886*	0.0387	0.0396	0.3547*	0.1771*	0.5352*	0.2937*	1			
17 Equity 30%: Y/N	-0.3466*	-0.2546*	-0.0513	0.1047	0.0608	0.1501	0.1277	0.1877*	-0.2559*	0.1059	0.1309	0.3427*	0.2303*	0.4631*	0.3571*	0.7089*	1		
18 Equity_final: Y/N	-0.1962*	-0.2545*	0.1190	0.1623*	0.1625*	0.1215	0.0073	0.1431	-0.0595	0.1260	0.2184*	0.3496*	0.22239*	0.3830*	0.4857*	0.5310*	0.5945*	1	

Appendix 1 (Continued)

Vars	Age	Gender	Ever donated	Ever invested	Ever own business	Income*	Average equity	Average pledge	Mot: help	Mot: community	Mot: trust
Mean	49.268	.275	.899	.657	.496	3.960	750.822	119.409	5.516	3.765	5.584
Median	49	0	1	1	0	4	175	0	5.6	4	5.67
SD	13.027	.448	.301	.476	.501	1.661	1970.845	490.053	.774	1.149	.975
Min	18	0	0	0	0	1	0	0	2.8	1	2
Max	78	1	1	1	1	7	15,000	5,000	7	6.67	7
N	149	149	149	149	149	149	149	149	149	149	149

Vars	Mot: fin return	Mot: reward	Pledge1: Y/N	Pledge1: amount	Pledge1: final: Y/N	Pledge_final: amount	Equity 10%: Y/N	Equity 30%: Y/N	Equity_ final: Y/N	Equity: amount 10%	Equity: amount 30%	Equity_final amount
Mean	4.687	3.794	.308	50.335	.409	81.919	.355	.523	.637	180.234	268.422	341.745
Median	5	4	0	0	0	0	0	1	1	0	0	50
SD	1.508	1.369	.463	108.184	.493	285.872	.480	.501	.482	460.862	620.940	622.387
Min	1	1	0	0	0	0	0	0	0	0	0	0
Max	7	6.67	1	650	1	3,000	1	1	1	2,500	5,000	3,000
N	149	149	149	149	149	149	149	149	149	149	149	149

* The income variable was measured on a scale of 1–7 in incremental brackets, starting from 1 (less than €20,000), 4 being €50,000–€65,000, and 7 = more than €95,000.

Appendix 2

Exploratory Factor Analysis

	Pattern matrix [†] component					Structure matrix component				
	1	2	3	4	5	1	2	3	4	5
HELPI1: I find it rewarding to help others realize their funding goals through my investment.	.694					.714				
HELPI2: I enjoy the feeling when the project that I have supported raises its target goal.	.520					.642				
REWARD1: I enjoy being the first one to have a new gadget or product.			.782					.822		
REWARD 2: I like to fund things that I can then play with.			.737					.807		
REWARD 3: I enjoy the anticipation of getting a new product or gadget that I have backed.			.825					.806		
COM1: I enjoy the feeling of belonging to a community of other backers.					.642					.699
COM2: I find it gratifying to see myself on the list of supporters for a project.					.587			.448		.676
COM3: I like to interact with the online community of backers and offer my advice about the project.					.812					.762
SUPPORT 1: I want to support ideas that promise to have social impact.	.787					.734				
SUPPORT 2: I like to back good ideas and give founders the opportunity to retain control of their ventures.	.648					.621				
SUPPORT 3: I enjoy the collaborative spirit in such investments and I want to help people realize their ideas.	.696					.718				
TRUST 1: I want to feel sure that the team knows how to handle the funds they raise for the project.		.845					.870			
TRUST 2: It is important that the team knows how long it takes from raising the funds to production and shipping.		.737					.772			
TRUST 3: I invest if I feel confident that my money will be used wisely by the founders.		.782					.775			
FIN 1: I enjoy using new types of investment channels to back projects.	.419		.858							.753
FIN 2: I prefer making profit by investing for equity than keeping a savings account.			.692				.419			.791
FIN 3: My primary goal is to generate return on my investment.			.604			-.468				.757

Note: Extraction method: Principal component analysis.

Rotation method: Promax with Kaiser normalization.

[†] Rotation converged in 7 iterations.

Appendix 3

Logistic Regressions, DVs: Decision to Pledge at Time 1 and at Time 2 (Final)

	Decision to pledge at time 1			Decision to pledge at time 2		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
<i>Controls</i>						
Age	0.986 (0.0144)	0.995 (0.0152)	1.003 (0.0163)	0.966* (0.0150)	0.976 (0.0167)	0.981 (0.0170)
Gender (1-Female)	1.007 (0.469)	1.214 (0.569)	1.171 (0.586)	1.334 (0.592)	2.090 (1.014)	2.049 (1.041)
Ever donated	0.830 (0.522)	0.987 (0.671)	0.847 (0.574)	0.550 (0.296)	0.513 (0.299)	0.474 (0.289)
Ever invested	2.900* (1.372)	2.676 (1.346)	2.228 (1.235)	1.992 (0.858)	1.770 (0.819)	1.583 (0.738)
Ever started own business	1.373 (0.525)	1.424 (0.549)	1.326 (0.525)	1.880 (0.701)	1.950 (0.752)	1.911 (0.746)
Income	1.145 (0.133)	1.137 (0.133)	1.103 (0.127)	0.963 (0.111)	0.958 (0.109)	0.936 (0.105)
Average pledge (past)	1.127 (0.0869)	1.138 (0.0904)	1.117 (0.0908)	1.277** (0.107)	1.355*** (0.123)	1.335** (0.118)
<i>Main effects</i>						
Motivation: help others		0.686 (0.193)	0.668 (0.202)		0.565 (0.165)	0.566* (0.162)
Motivation: community		1.169 (0.185)	0.969 (0.179)		1.017 (0.180)	0.882 (0.206)
Motivation: trust		1.189 (0.299)	1.121 (0.294)		2.032** (0.512)	1.956** (0.487)
Motivation: collect rewards			1.515* (0.288)			1.319 (0.252)
N	149	149	149	149	149	149
Pseudo R-sq	0.087	0.101	0.132	0.122	0.175	0.188
	Mean VIF		1.26	Mean VIF		1.29

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Note: Robust standard errors in parentheses.

Appendix 4

Logistic Regressions, DVs: Decision to Invest at 10%, 30% Equity, and Final Decision to Invest

	Invest for equity at 10%			Invest for equity at 30%			Invest for equity, time 2		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
<i>Controls</i>									
Age	0.961* (0.0155)	0.965** (0.0167)	0.973 (0.0177)	0.929*** (0.0153)	0.942*** (0.0154)	0.945*** (0.0156)	0.967* (0.0136)	0.974 (0.0145)	0.98 (0.0146)
Gender (1-Female)	0.291* (0.158)	0.268** (0.132)	0.297* (0.154)	0.389* (0.184)	0.438 (0.221)	0.467 (0.243)	0.373* (0.168)	0.457 (0.217)	0.511 (0.261)
Ever donated	0.476 (0.355)	0.539 (0.395)	0.409 (0.309)	0.647 (0.457)	0.75 (0.51)	0.676 (0.474)	2.551 (1.528)	2.702 (1.603)	2.393 (1.453)
Ever invested	0.955 (0.403)	0.833 (0.382)	0.575 (0.295)	0.813 (0.363)	0.648 (0.307)	0.543 (0.282)	1.364 (0.566)	1.317 (0.557)	0.983 (0.462)
Ever started own business	1.473 (0.606)	1.529 (0.642)	1.584 (0.678)	1.266 (0.515)	1.362 (0.56)	1.399 (0.574)	1.807 (0.687)	1.848 (0.715)	1.907 (0.76)
Income	1.193 (0.154)	1.199 (0.156)	1.234 (0.163)	1.127 (0.146)	1.128 (0.145)	1.131 (0.145)	1.04 (0.136)	1.031 (0.142)	1.042 (0.146)
Average equity (past)	1.365** (0.145)	1.371** (0.144)	1.297** (0.129)	1.308** (0.123)	1.299** (0.116)	1.277** (0.114)	1.068 (0.0851)	1.066 (0.0899)	1.032 (0.0942)
<i>Main effects</i>									
Motivation: help others		0.765 (0.289)	0.99 (0.382)		0.5 (0.182)	0.574 (0.205)		0.825 (0.245)	1.026 (0.325)
Motivation: community		1.058 (0.198)	1.002 (0.194)		1.181 (0.227)	1.165 (0.227)		1.188 (0.215)	1.138 (0.209)
Motivation: trust		0.873 (0.272)	0.661 (0.214)		1.294 (0.434)	1.15 (0.389)		1.401 (0.342)	1.174 (0.322)
Motivation: financial			1.647* (0.337)			1.219 (0.195)			1.424* (0.252)
N	149	149	149	149	149	149	149	149	149
Pseudo R-sq	0.203	0.212	0.246	0.208	0.234	0.24	0.113	0.133	0.155
Mean VIF			1.37			1.37			1.34
				Mean VIF			Mean VIF		

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Note: Robust standard errors in parentheses.

Appendix 5

Logistic Regression, DV: Decision to Pledge (Time 2), Accounting for the Effect of Having Invested for Equity at Time 1

	Model 1	Model 2	Model 3	Model 4
<i>Controls</i>				
Age	0.966* (0.0150)	0.976 (0.0167)	0.981 (0.0170)	0.992 (0.0186)
Gender	1.334 (0.592)	2.090 (1.014)	2.049 (1.041)	2.662 (1.427)
Ever donated	0.550 (0.296)	0.513 (0.299)	0.474 (0.289)	0.555 (0.322)
Ever invested	1.992 (0.858)	1.770 (0.819)	1.583 (0.738)	1.700 (0.828)
Ever started own business	1.880 (0.701)	1.950 (0.752)	1.911 (0.746)	2.087 (0.853)
Income	0.963 (0.111)	0.958 (0.109)	0.936 (0.105)	0.898 (0.107)
Average pledge (past)	1.277** (0.107)	1.355*** (0.123)	1.335** (0.118)	1.290** (0.124)
<i>Main effects</i>				
Motivation: help others		0.565 (0.165)	0.566* (0.162)	0.661 (0.201)
Motivation: community		1.017 (0.180)	0.882 (0.206)	0.878 (0.220)
Motivation: trust		2.032** (0.512)	1.956** (0.487)	1.813** (0.409)
Motivation: rewards			1.319 (0.252)	1.281 (0.245)
Decision to invest at 30% equity				3.203* (1.483)
N	149	149	149	149
pseudo R-sq	0.122	0.175	0.188	0.222
		Mean VIF		1.29

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Note: Robust standard errors in parentheses.

Appendix 6

Hierarchical Regressions, DVs: Amount Pledged at Time 1 and Time 2

	Amount pledged at time 1			Amount pledged at time 2		
	model 1	model 2	model 3	model 1	model 2	model 3
<i>Controls</i>						
Age	-0.00748 (0.0130)	0.000737 (0.0143)	0.00712 (0.0143)	-0.0155 (0.0143)	-0.00724 (0.0158)	-0.000366 (0.0155)
Gender	0.0432 (0.377)	0.194 (0.375)	0.125 (0.376)	0.101 (0.406)	0.473 (0.400)	0.398 (0.402)
Ever donated	-0.164 (0.611)	-0.0545 (0.622)	-0.188 (0.604)	0.513 (0.495)	0.475 (0.494)	0.331 (0.490)
Ever invested	1.075** (0.345)	0.971** (0.359)	0.779* (0.366)	0.717 (0.380)	0.624 (0.373)	0.417 (0.356)
Ever started own business	0.302 (0.374)	0.341 (0.379)	0.260 (0.382)	0.576 (0.391)	0.588 (0.385)	0.501 (0.378)
Income	0.148 (0.122)	0.146 (0.125)	0.132 (0.120)	0.0771 (0.123)	0.0776 (0.116)	0.0622 (0.110)
Average pledge (past)	0.118 (0.0864)	0.124 (0.0878)	0.101 (0.0906)	0.219* (0.0872)	0.252** (0.0846)	0.227** (0.0831)
<i>Main effects:</i>						
Motivation: help others		-0.347 (0.262)	-0.333 (0.256)		-0.275 (0.269)	-0.260 (0.255)
Motivation: community		0.110 (0.149)	-0.0474 (0.157)		-0.0502 (0.154)	-0.220 (0.181)
Motivation: trust		0.182 (0.245)	0.121 (0.245)		0.626*** (0.178)	0.561** (0.176)
Motivation: rewards			0.354* (0.151)			0.380* (0.160)
Constant	0.355 (0.939)	-0.121 (0.980)	-0.0475 (0.946)	0.663 (0.883)	0.232 (0.975)	0.311 (0.967)
N	149	149	149	149	149	149
pseudo R-sq	0.075	0.070	0.098	0.092	0.130	0.161
	Mean VIF		Mean VIF			
			1.26			1.26

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Note: Robust standard errors in parentheses.

Appendix 7

Hierarchical Regressions, DVs: Amounts Invested at 10%, 30%, and Final (Time 2)

	Amount at 10% equity			Amount at 30% equity			Final amount (time 2)		
	model 1	model 2	model 3	model 1	model 2	model 3	model 1	model 2	model 3
<i>Controls</i>									
Age	-0.0313* (0.0142)	-0.0234 (0.0148)	-0.0141 (0.0146)	-0.0741*** (0.0162)	-0.060*** (0.0169)	-0.0561** (0.0171)	-0.0338* (0.0167)	-0.0252 (0.0188)	-0.0169 (0.0188)
Gender	-1.018** (0.342)	-0.898* (0.385)	-0.694 (0.379)	-1.033* (0.467)	-0.761 (0.475)	-0.657 (0.49)	-1.451*** (0.523)	-1.166* (0.549)	-0.983 (0.572)
Ever donated	-0.168 (0.757)	-0.0518 (0.746)	-0.304 (0.728)	0.384 (0.775)	0.531 (0.756)	0.401 (0.753)	1.281 (0.7)	1.307 (0.666)	1.081 (0.655)
Ever invested	0.33 (0.336)	0.218 (0.339)	-0.168 (0.356)	0.0731 (0.438)	-0.0813 (0.431)	-0.279 (0.451)	0.729 (0.462)	0.688 (0.466)	0.342 (0.486)
Ever started own business	0.585 (0.423)	0.628 (0.425)	0.608 (0.412)	0.434 (0.424)	0.498 (0.421)	0.488 (0.421)	0.931* (0.441)	0.962* (0.438)	0.945* (0.433)
Income	0.214 (0.13)	0.218 (0.131)	0.233 (0.123)	0.296* (0.134)	0.297* (0.133)	0.305* (0.132)	0.0751 (0.152)	0.0651 (0.157)	0.0789 (0.154)
Average equity (past)	0.384*** (0.0837)	0.380*** (0.084)	0.331*** (0.0828)	0.322*** (0.0967)	0.314*** (0.0946)	0.290*** (0.0953)	0.149 (0.0998)	0.147 (0.102)	0.103 (0.105)
<i>Main effects</i>									
Motivation: help others		-0.373 (0.291)	-0.111 (0.294)		-0.541* (0.27)	-0.406 (0.282)		-0.201 (0.332)	0.034 (0.343)
Motivation: community		0.0953 (0.186)	0.0317 (0.185)		0.173 (0.186)	0.14 (0.19)		0.16 (0.201)	0.103 (0.195)
Motivation: trust		0.134 (0.222)	-0.117 (0.223)		0.369 (0.224)	0.241 (0.234)		0.459 (0.239)	0.234 (0.262)
Motivation: financial			0.476** (0.157)			0.244 (0.167)			0.426* (0.179)
Constant	0.744 (1.141)	0.294 (1.154)	0.415 (1.148)	3.358** (1.242)	2.632* (1.218)	2.695* (1.228)	2.4 (1.226)	1.961 (1.302)	2.07 (1.311)
N	149	149	149	149	149	149	149	149	149
Pseudo R-sq	0.247	0.24	0.274	0.257	0.268	0.272	0.172	0.181	0.204
Mean VIF			1.34		1.34			1.34	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
 Note: Robust standard errors in parentheses.

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