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To cite this article: Krystallia Moysidou & J. Piet Hausberg (2019): In crowdfunding we trust: A trust-building model in lending crowdfunding, Journal of Small Business Management

To link to this article: <https://doi.org/10.1080/00472778.2019.1661682>



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Published online: 08 Nov 2019.



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In crowdfunding we trust: A trust-building model in lending crowdfunding

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ABSTRACT

Trust critically affects the perceived probability of receiving expected returns on investment. Crowdfunding differs in many ways from traditional forms of investing. We have to ask what builds trust in this particular context. Based on literature regarding the formation of initial trust, we developed a model to explain which factors lead to crowdfunders' trust in a crowdfunding project. We tested it on data collected from actual investors in a real project on a crowdlending platform. Our results show that trust in the crowdfunding platform and the information quality are more important factors of project trust than trust in the creator.

KEYWORDS

Crowdfunding; trust; structural equation modeling

Introduction

As a new form of fundraising, crowdfunding emerged in the wake of the 2008 financial crisis and revolutionized the fundraising process, especially for startups and small and medium enterprises (SMEs). Assisted by the widespread adoption and social acceptance of Web 2.0 technologies, crowdfunding expanded on a large scale, providing the infrastructure to reach millions of investors and supporters online (Agrawal, Catalini, & Goldfarb, 2015; Short, Ketchen, McKenny, Allison, & Ireland, 2017). Employing platform-mediated approaches to collect many small amounts from a large number of individuals, crowdfunding has diffused from nonprofit projects to entrepreneurial funding for innovative new ventures. It has thus provided funding opportunities, particularly to startups that had no access to traditional capital markets. In entrepreneurial funding, the prevailing types are reward based, lending, and equity crowdfunding (Cholakova & Clarysse, 2015). Donation crowdfunding, although popular, is mainly employed for charities and non-profits (Belleflamme, Lambert, & Schwienbacher, 2014).

The recent rapid growth of crowdfunding has spurred an upsurge of academic research on the topic (Bruton, Khavul, Siegel, & Wright, 2015). Early research focused mainly on its definition and types (Mollick, 2014;

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Schwienbacher & Larralde, 2012), and crowdfunders' motivation (Ordanini, Miceli, Pizzetti, & Parasuraman, 2011), as well as the geographic dispersion of the investments and its global reach (Agrawal, Catalini, & Goldfarb, 2011). Further studies on crowdfunding examined a plethora of topics, including: success factors and dynamic aspects of crowdfunding (e.g. Kuppuswamy & Bayus, 2017), signaling (e.g. Burtch, Ghose, & Wattal, 2013), social capital (e.g. Lin, Prabhala, & Viswanathan, 2013; Mollick, 2014), communication (e.g. Courtney, Dutta, & Li, 2017), and narratives (e.g. Parhankangas & Renko, 2017). Recent studies have also studied the role of geography, local altruism, and localized social capital in crowdfunding success (Giudici, Guerini, & Rossi-Lamastra, 2018), as well as the impact of the fund-seeker's education, professional experience, gender (Barbi & Mattioli, 2019), and social ties (Simon, Stanton, Townsend, & Kim, 2019) on the success of a campaign. Additionally, other studies recently explored how crowdfunding performance influences professional funding (Roma, Messeni Petruzzelli, & Perrone, 2017) and consumer perceptions regarding the product (Wehnert, Baccarella, & Beckmann, 2019). Finally, the question of whether crowdfunding can be a viable method to fund science and technology projects has attracted researchers' interest (Colombo, Franzoni, & Rossi-Lamastra, 2015; Sauermann, Franzoni, & Shafi, 2019).

The role of information asymmetries and signaling in crowdfunding has recently been the focus of a growing body of literature (Burtch et al., 2013; Courtney et al., 2017). This topic has been suggested to be particularly relevant for crowdfunding in general, and for lending crowdfunding in particular (Ahlers, Cumming, Günther, & Schweizer, 2015; Courtney et al., 2017). In lending crowdfunding, information is hard to verify, crowdfunders are considerably less sophisticated compared to traditional investors, and the institutional framework is less developed than that of other traditional forms of financing. As a result, information asymmetries between entrepreneurs and investors/lenders are higher in crowdfunding compared to traditional forms of financing, and signals are crucial for investors (Ahlers et al., 2015; Courtney et al., 2017).

Previous research on information asymmetry and signaling in crowdfunding has confirmed that social capital and others' early contribution play a significant role in crowdfunders' decision-making because they reduce uncertainties and perceived information asymmetries (Herzenstein, Dholakia, & Andrews, 2011; Lin et al., 2013). Representing a sign of credibility and trustworthiness, social capital and early financial contribution trigger herding behavior (Skirnevskiy, Bendig, & Brettel, 2017; Zhang & Liu, 2012). More specifically, in the initial phase of a crowdfunding project, when uncertainty surrounding the project discourages potential funders, early participation mainly from the founders' network can provide a signaling function for participants without previous ties to the project. Thus, investors have access to information about early funding and can use it when deciding whether they

will support the project as well (Burtch et al., 2013). Besides social capital and early financial contribution, narratives can also provide a signaling function to prospective lenders (Moss, Neubaum, & Meyskens, 2015).

Despite this preliminary but valuable work on information asymmetries and signaling in crowdfunding, there is still no clear view as to what other factors increase overall trust in a crowdfunding project. The importance of trust in reward-based has been highlighted in a recent study, which suggested that trust management significantly promoted fundraising performance (Zheng, Hung, Qi, & Xu, 2016). Trust is of utmost importance in financial settings because it serves as a mechanism to enable action where otherwise the perceived risk resulting from the complexity of economic transactions would impede it (McKnight, Cummings, & Chervany, 1998). Given that financial transactions in general are extremely trust intensive (Guiso, Sapienza, & Zingales, 2008), it is no surprise that this topic is of great importance, especially in the context of crowdfunding and lending crowdfunding. In lending crowdfunding, unlike in traditional financial settings, a due diligence process is not feasible and thus investment opportunities have to be judged based on the online project description. Moreover, lending crowdfunding currently has only limited central authority with a gatekeeping function making it difficult for crowdfunders to know whether they are dealing with a legitimate fund-seeker and to what extent an opportunistic behavior is likely to occur. Thus, in the case of fraud, it is more difficult to trace fund-seeker(s) that committed the act. Although lawmakers in many countries currently develop such institutions and regulations, all involved actors have to figure out what impact will result from this effort.

In this study, we address the above-mentioned gap and examine the following research question: How is trust established and transferred in the context of a lending crowdfunding project? Our goal is in particular to offer some first insights into how trust in a lending crowdfunding project is formed and how it is transferred from other trustees/crowdfunding actors to the project. Our proposed model is not an exhaustive one, meaning that we do not include all possible factors that influence the emergence and transfer of trust in a project. Instead, we focus on the factors that have been evidenced to be the most fundamental ones, as suggested in past trust-related literature (McKnight, Choudhury, & Kacmar, 2002; Pavlou, 2002). Other antecedents (for example, platform characteristics like track record, success rate, and team) influence those factors and thus might influence the perceived trust in the platform. However, the examination of those relationships is out of the scope of the present study.

Building on two well-established theories, the theory of trust transfer (Stewart, 2003) and swift trust (Meyerson, Weick, & Kramer, 1996), we tested the influence of the variables *trust in the creator*, *trust in the platform*, *information quality*, and *familiarity* in the *trust in a lending crowdfunding*

project, and we controlled for the perceived feasibility of the project and its collective judgments. We found that, in lending crowdfunding, the main factors determining the level of overall trust in a project were: the trust in the crowdfunding platform and the perceived quality of the presented information. Both of the above-mentioned theories have been proven to be valid in online settings and in temporal and situational conditions, where there are limited chances for relationships over time to develop. The trust transfer theory postulates that, at initial phases of a relationship, an individual's trust in an unknown target (for example, an eBay seller) is influenced by trust in associated targets (for example, eBay) (Stewart, 2003). Similarly, the swift trust theory explains the existence of trust in temporary structures and proposes that in those cases, the trustor assumes trust initially and later verifies and adjusts trust beliefs accordingly (Meyerson et al., 1996). Thus, both theories are significantly appropriate to explain trust in the context of crowdfunding, considering that kind of trust cannot be the result of a history-dependent relationship that develops based on past behavior and experience.

Our study makes several valuable contributions to crowdfunding and lending crowdfunding research. First, we enrich the theory of trust transfer (Stewart, 2003) and swift trust (Meyerson et al., 1996) by testing them in a new setting that is crowdfunding. Second, we add new insights to the literature on online trust in the digital economy (e.g. Jarvenpaa, Knoll, & Leidner, 1998; Jarvenpaa, Shaw, & Staples, 2004). Finally, with our findings, we contribute to the emerging literature on uncertainty and information asymmetries in crowdfunding (Colombo et al., 2015; Herzenstein et al., 2011; Kuppuswamy & Bayus, 2017).

Theoretical background

Crowdfunding: The rise and context

Crowdfunding has recently emerged as a principal force in entrepreneurial finance, fostering economic empowerment and a democratic transformation of the financial sector (Assenova et al., 2016; Block et al., 2018). Given the difficulties in fundraising via the established ways, mainly due to strict lending requirements and limited access to bank loans, entrepreneurs opt for alternative sources to fund their ventures. Serving as a “bridge” for entrepreneurs and funds, crowdfunding enables fund-seekers to overcome those limitations by making use of the Web 2.0 applications. Those applications facilitate inexpensive mass appeals to a global crowd, allowing fund-seekers to reach literally millions of potential investors, with no costly intermediaries such as banks or underwriters (Agrawal et al., 2015).

Falling under the umbrella of the crowd phenomena (Franzoni & Sauermann, 2014), crowdfunding is based on the principle of outsourcing a particular task, in this case fundraising, to a crowd of dispersed individuals. The emergence of

crowd phenomena, such as citizen science (Aristeidou, Scanlon, & Sharples, 2017; Sullivan et al., 2014; Wildschut, 2017) and crowdsourcing (Cappa, Oriani, Pinelli, & De Massis, 2019; Ghezzi, Gabelloni, Martini, & Natalicchio, 2018; Howe, 2006; Maiolini & Naggi, 2011; Piazza, Mazzola, Acur, & Perrone, 2019; Segev, 2019), indicated a shift toward the consumer and established the importance of the crowd. Citizen science revolutionized research by enabling the active participation of the public in scientific projects (Cappa, Laut, Nov, Giustiniano, & Porfiri, 2016; Cappa, Laut, Porfiri, & Giustiniano, 2018), whereas crowdsourcing allowed companies to outsource their problem-solving tasks and thus obtain ideas and solutions from the crowd (Garcia Martinez, 2015). With the establishment of crowdfunding, the crowd obtained an even more active role, participating not only in the innovation and problem solving processes, but also in the capital raising (Ordanini et al., 2011).

The process of crowdfunding begins with the development of a “pitch” that gives information that entrepreneurs wish to make available to potential funders. The pitches are hosted in crowdfunding platforms that organize and administrate the whole process and act as a market for fund-seekers to interact with the crowds (Bruton et al., 2015). The pitch information can take the form of hard facts such as revenue figures or monthly disposable income, or soft claims such as the entrepreneurs’ backgrounds and aspirations or promises. However, only some of the presented facts are validated by the crowdfunding platform (for example, some platforms check basic information like credit score, personal income (Iyer, Khwaja, Luttmer, & Shue, 2015), or business plans (Mollick & Robb, 2016).

Crowdfunding represents a quite heterogeneous range of practices with four prevailing types: donation, reward-based, lending, and equity crowdfunding. Although all types employ platform-mediated approaches to collect many small transactions, there are significant differences among them, not only on the reward, process, and institutional environment (Block, Fisch, & van Praag, 2017), but also on the motivation and behavior of those who participate (Bruton et al., 2015; Moysidou, 2017). In donation crowdfunding, contributors support a project and receive no or only symbolic rewards in return, as motivation is purely intrinsic (Gerber & Hui, 2013). In reward-based crowdfunding, crowdfunders receive nonpecuniary tangible (prototypes) or intangible (experiences) rewards in exchange for their support, being driven by intrinsic (for example, engagement) and extrinsic benefits (for instance, the reward) (Cholakova & Clarysse, 2015). In lending crowdfunding, supporters receive a monetary return in the form of interest, reflecting the risk and duration of the project (Allison, McKenny, & Short, 2013; Bruton et al., 2015). Depending on the monetary return, motivation varies from intrinsic to extrinsic (a favorable interest rate, investment diversification) (Ordanini et al., 2011). Finally, in equity crowdfunding, supporters receive a shareholding contract or a revenue-sharing scheme in return for

their contribution. In this type, extrinsic motivation prevails (Cholakova & Clarysse, 2015; Colombo et al., 2015; Vismara, 2018).

The various crowdfunding types also differ on the complexity of their processes for investors and the degree that they have to get involved with the new venture. The most complex type for backers, requiring their highest involvement, is equity crowdfunding, followed by lending crowdfunding and reward crowdfunding. Donation crowdfunding is significantly less complex and crowdfunders' involvement is minimal (Hornuf & Schwienbacher, 2018). In the present study, we focus on lending crowdfunding, enabled by our cooperation with a lending crowdfunding platform in Germany. The induction of trust in this type of crowdfunding is vital, mainly due to its high complexity of the contribution process for investors and their high involvement with the entrepreneurial venture.

Trust and its formation

The lack of consensus on the definition of *trust* across disciplines is depicted in the more than 200 definitions that are available to date (Corritore, Kracher, & Wiedenbeck, 2003; Hosmer, 1995; Rousseau, Sitkin, Burt, & Camerer, 1998). Irrespective of the underlying discipline, confident expectations and willingness to be vulnerable are critical components of all definitions of trust (Rousseau et al., 1998). In general, trust can be viewed as a measure of confidence that the trustee will behave in an expected manner and will refrain from opportunistic behavior (Williamson, 1993). As a multidimensional construct, trust has two interrelated components — beliefs and intentions. The fundamental difference between trusting beliefs and trusting behaviors is between a “willingness” to assume risk and actually “assuming” risk (Mayer, Davis, & Schoorman, 1995).

Traditional models of trust have viewed trust as a developmental process (Lewick & Bunker, 1996; Lewicki & Bunker, 1995; Sheppard & Tuchinsky, 1996), as a result of a history-dependent relationship (Kramer, 1999) that develops gradually through the communication of past behavior (Lewicki & Bunker, 1995; Mayer et al., 1995). In many cases, however, a developmental process is impossible to exist because the interaction between the trustor and the trustee is on one occasion. The traditional view of trust, for instance, cannot explain high levels of trust that have been observed among members of temporary virtual teams (Jarvenpaa et al., 1998, 2004). This type of trust, defined by Meyerson et al. (1996) as “swift trust,” is a form of initial trust that occurs in temporary teams whose existence is formed around a clear purpose and common task with a finite life span. *Initial trust* refers to trust formed in the early stage of a relationship, without any previous experience with the target/trustee. *Swift trust* focuses further on those cases of initial trust in

which the trustor and trustee interact temporarily and there is no perspective of developing an overtime relationship.

When researching trust in a crowdfunding project, the theory of swift trust is the most appropriate one. More specifically, in the context of crowdfunding, the traditional developmental process of trust formation is practically impossible due to the architecture of the crowdfunding platforms. Unlike online communities in which communication among members is a primary component, crowdfunding platforms offer limited opportunities for members to communicate directly and consequently to develop personal relationships. Thus, actors are mostly unfamiliar and unknown to each other and do not yet have credible information or affective bonds with each other (Bigley & Pearce, 1998). Crowdfunders obtain such information only after their engagement in trust-related behavior (financial support). During this initial presupport period, individuals' perceptions of uncertainty and risk are particularly salient and fund-seekers need to engender sufficient swift trust quickly at an early stage to overcome those perceptions and to persuade crowdfunders to support the project. Thus, our model explains the formation of initial trust and, specifically, of swift trust in a lending crowdfunding project.

Trust in the context of crowdfunding

In general, trust limits the need to screen information (Szulanski, Cappetta, & Jensen, 2004) and increases the perceived accuracy of information (Roberts & O'Reilly, 1974), while also reducing transaction costs (Bharadwaj & Matsuno, 2006; Bromiley & Cummings, 1995). In traditional offline financial settings, trust has been explicitly connected to investment decisions (Lorenz & Gambetta, 1988) and financial choices such as portfolio allocation, stock market participation (Guiso et al., 2008), and reliance on informal lending (Butler, Giuliano, & Guiso, 2016; Guiso, Sapienza, & Zingales, 2004, 2009).

The concept of trust is particularly salient in the context of crowdfunding as compared to traditional offline financial settings. Studies have shown that a greater degree of trust is required in online transaction environments than in face-to-face ones (Grabner-Kräuter & Kaluscha, 2003; Lee & Turban, 2001), as online information is less reliable and prone to alteration (Alexander & Tate, 1999). Especially in the context of crowdfunding, the need for trust is even more pronounced and not only because crowdfunding happens online. Most importantly, this is because of the limited participation of expert investors, the difficulty in information scrutiny in crowdfunding, and the inadequate presence of professional gatekeepers in crowdfunding.

Considering that in crowdfunding most information is unverified, the relationship between the entrepreneur and potential investors is characterized by high levels of information asymmetries (Ahlers et al., 2015; Courtney et al., 2017). With scant verified and verifiable information, investors need to trust

the signals and the best intention of the entrepreneur. Since the contribution process and crowdfunders' involvement differ in each crowdfunding type, it is logical to assume that the role of trust will also vary. As equity crowdfunding is the most complex type with a high size and monetary value of the deals (Vismara, 2018), a higher degree of trust is assumed to be needed to overcome the information asymmetries. Similar to equity, lending crowdfunding is rather complex and requires high involvement from the supporters and, thus, trust is expected to play a significant role. On the contrary, in reward-based and especially in donation crowdfunding, the contribution process is straightforward and simple and the amounts are generally much lower.

The focus of the present study lies on crowdfunding and, more specifically, on lending crowdfunding. One of the reasons why this type is particularly interesting is that it is the leading type in terms of the amount of funds gathered per year (Massolution, 2015). Moreover, due to the high complexity of the contribution process and the supporters' involvement, trust in this crowdfunding type is expected to play a more significant role as compared to less complex types (for instance, reward-based crowdfunding). Finally, although in some countries such as Italy and the United States recent laws have increased the protection of investors in equity-based crowdfunding, the legal standing of lending crowdfunding is still vague. Thus, the induction of trust is vital in lending crowdfunding.

Hypothesis development

Interpersonal trust

Interpersonal trust is a vitally important concept for human behavior in both offline and online contexts (Jarvenpaa et al., 1998; Jarvenpaa, Tractinsky, & Saarinen, 1999; McKnight et al., 2002; Parks & Floyd, 1996, 1996; Pavlou, 2002; Sproull, Kiesler, & Kiesler, 1992; Yousafzai, Pallister, & Foxall, 2003). As defined by Rotter (1967), "interpersonal trust" is an expectancy held by an individual or a group that this trustor can rely on the word, promise, or verbal or written statement of another individual or group. In the context of crowdfunding, the project creator plays a central role in the information given on the project page. Drawing on Nooteboom's (1996) framework of trust, we conceptualize trust in the project creator as consisting of two dimensions: competence and goodwill. *Competence* refers to the project creator's ability to perform according to agreements and *goodwill* refers to the project creator's intentions to perform as promised (Nooteboom, 1996). The first dimension implies an assessment of the creator's knowledge, capabilities, expertise, and resources, while the second is linked to the creator's integrity, good faith, good intentions, and willingness to take certain actions

(McLain & Hackman, 1999). High levels of perceived competence and goodwill will result in high trust in the project creator. Since the project creator is the main point of reference for the creation of the project, we hypothesize that:

Hypothesis 1 (H1): The higher the trust in the project creator, the higher the trust in the lending crowdfunding project.

Institution-based trust

Institution-based trust refers to an individual's belief that the necessary impersonal structures and structural safeguards are in place to enhance the probability of achieving a successful outcome in a future transaction or endeavor. This construct emerges primarily from the sociological literature, according to which trust is supported by the institutional structures (that is, legal, regulatory, contractual, governmental) that provide a safe and secure environment to participants, encourage cooperation between members, and penalize misbehaviors. Institution-based trust is especially important in the context of crowdfunding, due to the lack of clarity about the legal standing of crowdfunding within current jurisdiction. Following the institutions-as-rules approach, we define *institutions* as “the rules of the game in a society,” including both “formal” rules enforced by the state and “informal” constraints such as “codes of conduct, norms of behavior, and conventions” enforced by the members of the relevant group (North, 1990, p. 36). According to that definition, crowdfunding platforms can be viewed as institutions since they put into effect the rules in the crowdfunding process and have the potential to induce institution-based trust.

In general, intermediaries in online contexts (that is, online marketplaces, crowdfunding platforms) are facilitators of the formation of trust. Crowdfunding platforms, being such intermediaries, partly substitute for the lack of institutional context and provide the much-needed institutional safety nets (for example, through the implementation of comprehensive fraud prevention systems to protect their users). In most cases, platforms have internal procedures based on which they try to protect the crowd and allow only legitimate and honest fund-seekers to participate on their platform. Crowdfunders therefore expect intermediaries to accredit, evaluate, or eliminate problematic projects; to secure transactions and private information; to encourage benevolent transaction norms; and generally to offer a reliable and secure crowdfunding environment. This can happen, for example, by taking legal action against fraudulent project creators on behalf of the crowdfunders.

We draw on Stewart's (2003) work on trust transference, arguing that trust in the crowdfunding intermediary is a trust-building factor for crowdfunders'

trust in a project as well as its creator. On the one hand, crowdfunders who trust the crowdfunding platform will tend to trust the project because of its association with the intermediary and the fact that it passed the scrutiny of the platform they trust. On the other hand, potential investors can hardly observe directly the competence and goodwill of the project creator seeking funding, especially due to lack of repeated interaction. Instead, they have to rely on signals such as the fact that they have passed the checks of the crowdfunding platform. Thus, we hypothesize that:

Hypothesis 2: The higher the trust in the platform, the higher the trust (H2a) in the creator and (H2b) in the lending project.

Further antecedents of trust

Disposition

Disposition to trust is an individual's general tendency to believe in others, to be willing to depend on and trust others (Mayer et al., 1995; McKnight et al., 1998; Rotter, 1971). This concept emerges primarily from psychology (Erikson, 1968; Rotter, 1967, 1971), which recognizes that people develop generalized expectations about the trustworthiness of others over the course of their lives. Hence, disposition to trust is independent of the particular context and is not based on experience or knowledge about a specific trusted party (Kenning, 2008). Instead, it is the result of an ongoing lifelong experience and socialization (Fukuyama, 1995; Rempel, Holmes, & Zanna, 1985; Uslaner, 2008). In our model, crowdfunders' *disposition to trust* refers to the extent to which a crowdfunder displays a consistent tendency to be willing to depend on others across a broad spectrum of situations and persons (McKnight et al., 2002). Disposition to trust is particularly important in the early phases of a relationship, when the parties are still unfamiliar (Rotter, 1971). Thus, its impact is expected to be particularly pronounced in ad hoc, dynamic crowdfunding environments, where information about trustees may be sparse and there is a absence of extensive ongoing relationships (McKnight et al., 1998). Therefore, we hypothesize that:

Hypothesis 3: The higher the disposition to trust, the higher is the trust in (H3a) the lending crowdfunding platform, (H3b) the creator, and (H3c) the lending project.

Information quality

Cognitive trust is defined as a "trustor's rational expectations that a trustee will have the necessary attributes to be relied upon" (Komiak & Benbasat, 2006, p. 943). It basically refers to trust "from the head," or to "good rational reasons why the object of trust merits trust" (Lewis & Weigert, 1985a, p. 972). In traditional

offline settings cognition-based trust essentially derives from a judgment based on evidence of the trustee's competence and reliability and from knowing the trustee "well enough" to feel confident that he will perform as promised. In crowdfunding, repeated interactions and past experience with the trustee often are not available and therefore cognition-based trust is based on "good reasons" and information (McAllister, 1995, p. 26). In this case, given information is the key factor that allows one trading partner to predict the behavior of another trading partner (Lewick & Bunker, 1996; Shapiro, Sheppard, & Cheraskin, 1992). Here, initial cognition-based trust is built on rapid cognitive cues or first impressions (Lewis & Weigert, 1985b; Meyerson et al., 1996) rather than through experiential personal interaction (Brewer & Silver, 1978; Meyerson et al., 1996). As Ahlers et al. (2015) show, careful elaboration on the crowdfunding projects' plan, such as financial road maps, risk factors, and internal governance, reduce the perceived risks and ambiguities. Information quality, hence, will not affect the trust in the platform in general, but the trust in specific fund-seekers and their projects.

Hypothesis 4: The higher the perceived quality of information, the higher the trust in (H4a) the project creator and (H4b) the lending project.

Familiarity

Trust grows, at least partly, as a function of familiarity with an individual, a group, or a phenomenon (Chua, Ingram, & Morris, 2008; Ganesan, 1994; Gefen, 2000; Gulati, 1995; Luhmann, 1979; Ring & Van de Ven, 1992). As a prerequisite of trust, familiarity leads to an understanding of an entity's current actions, while trust deals with beliefs about an entity's future actions (Gefen, 2000). Familiarity has been shown to be particularly relevant in online contexts (Kim, Ferrin, & Rao, 2008). In online shopping, for example, familiarity and prior internet shopping experience significantly affect general attitudes and intentions to shop online (Vijayasarathy & Jones, 2000). Similarly, in financial settings, research has shown that familiarity has a positive effect on trust, which in turn has a strong effect on intentions (Mudd, Pashev, & Valev, 2010). In the context of crowdfunding, *familiarity* refers to an investor's degree of acquaintance with the phenomenon of crowdfunding, which includes knowledge and understanding of the relevant procedures, types, and outcomes. Investors in crowdfunding may invest in many different projects, but not on equally many different platforms. Instead, once they are fairly familiar with crowdfunding and are informed about the different platforms available, they repeatedly support projects on their most trusted platform. Thus, we hypothesize that:

Hypothesis 5 (H5): The higher the familiarity with crowdfunding, the higher the trust in the lending crowdfunding platform.

Methodology

Sampling and data description

We conducted the survey in cooperation with a German lending platform, which employs a “take it all” crowdfunding model. Unlike other lending platforms, which collect crowdfunders’ funds and then use their portfolio manager to divide the sum on a number of loans, our platform allows crowdfunders themselves to review and select the projects they want to finance. The platform we studied employs a model similar to lending platforms such as the platform “October” (former Lendix). Lenders review the characteristics of the project and the project creator, analyze investment-relevant information, and ultimately make a decision about whether they will support financially the project or not. When reviewing a project page, lenders receive detailed information, including a video presentation of the project, financial data and predictions, and a profile of the entrepreneur as well as a message from the entrepreneur (something like a motivation letter). Additionally, information is available regarding the conditions of the credit agreement including the interest rate (non-negotiable and set by the entrepreneur) and the payback plan, as well as the minimum amount that each crowdfunder can pledge. Finally, crowdfunders have access to a FAQ section and also have the option to contact the entrepreneur via a contact form, in case the FAQ section does not answer their inquiry.

The platform has a total active investor base of over 3,500, and so far has raised over 12 million euros. The average return on investment for investors is 6.4 percent. Crowdfunders in our sample invest on average 2,200 euros on each project (the platform accepts only investments above 100 euros; the legal maximum for this kind of crowdfunding is 10,000 euros). Thus, the average investment is very different from that of crowdfunders in other platforms (for example, Kickstarter), who have been the focus of previous crowdfunding studies (for example, Mollick, 2014; Zvilichovsky, Inbar, & Barzilay, 2014).

We collected data through an online implementation of our questionnaire. We sent an email invitation to only newsletter recipients who were registered members of the platform and had recently reviewed a project on the platform. Thus, we made sure our respondents were still acquainted with a project on the platform. However, we could not tell whether the respondents invested in the project in the end or not. This was out of the scope of our research question.

The average response time was 10.8 minutes. In addition, we tested whether the subjects had skipped any questions of the study or had always clicked the same answer. After discarding cases with incomplete or rushed responses, our sample included 167 cases. Our participants were mostly men (85 percent), 47 years old on average (ranging from age 26 to 78), and an annual income of 56,898 euros.

Control variables

Collective judgment

Research has already confirmed that crowdfunders tend to follow the funding choices of other crowdfunders (Agrawal et al., 2015; Herzenstein et al., 2011; Kuppuswamy & Bayus, 2015; Mollick & Nanda, 2015). Thus, we expected that the extent to which the project is perceived to have received considerable funding and interest, referred to as “collective judgments,” will have a significant impact on crowdfunders perceived trust in the project.

Feasibility

Studies in the areas of venture capitals and business angels found that the perceived feasibility of a business idea or business plan is positively associated with the investment decision (Chen, Yao, & Kotha, 2009; Pollack, Rutherford, & Nagy, 2012). Similarly, we expected that when the idea and the business plan presented in a crowdfunding project page appear to be feasible and achievable, then the trust levels in the project will increase.

Operationalization

To operationalize the constructs, we utilized already validated scales wherever possible (see Table 1). To measure the respondents' familiarity with crowdfunding, we included statements like “I am generally familiar with crowdfunding” (Gefen, 2000). We measured the trust in the platform with statements that referred explicitly to the platform we cooperated with; for example, “[Platform] can be trusted at all times” (McKnight et al., 2002). To measure the trust in the project creator, we used items like “I am convinced that the project creator(s) will fulfill his/her/their obligations” (McKnight et al., 2002). Likewise, for the variable disposition to trust, we resorted to established items such as “In general, I trust other people” (Gefen, 2000).

We measured trust in the project with items that explicitly asked for the aspects of project trust like “This crowdfunding project is trustworthy” (Lim, Sia, Lee, & Benbasat, 2006; Pavlou, 2002). The feasibility of the project was measured with items focusing on specific features of the project like the idea or the business plan: “This project includes a realistic business idea” (Chen et al., 2009; Dvir, Raz, & Shenhar, 2003; Jun, Qiuzhen, & Qingguo, 2011). We measured information quality by providing statements that allowed us to assess whether investors perceived the information as sufficiently complete and satisfactory: “I am satisfied with the information on this project page” (Kim et al., 2008).

When it comes to the collective judgments, which measures the extent to which a project is perceived to have received considerable funding and interest, previous studies (for example, Herzenstein et al., 2011) have used the exact amount of funds collected at the exact time that the participants

Table 1. Online survey questionnaire.

Code	Item	Source
Fam1	I am generally familiar with crowdfunding.	Gefen (2000)
Fam2	I am familiar with conducting online investments in crowdfunding projects.	
Fam3	The process of supporting crowdfunding projects is known to me.	
Coll1	Judging by the funding status of the project, the project is popular with the crowd	Own
Coll2	The project has received considerable funding so far	
Coll3	The project seems to please other investors	
TP1	[This platform] can be trusted at all times.	McKnight et al. (2002)
TP2	[This platform] is a competent and knowledgeable crowdfunding platform.	
TP3	[This platform] has high integrity as crowdfunding platform, i.e. the mediated ethical principles and values are also implemented and lived.	
TC1	I am convinced that the project creator(s) will fulfill his/her/their obligations.	McKnight et al. (2002)
TC2	I would call the project creator(s) honest.	
TC3	I believe that the project creator(s) has the competence and the efficiency to successfully achieve the goals and to keep all promises made to me.	
Dispo1	In general, I trust other people.	Gefen (2000)
Dispo2	I tend to count on other people.	
Dispo3	In general, I trust other people unless they give me reason not to trust them.	
Trust1	This crowdfunding project is trustworthy.	Lim et al. (2006), Ba and Pavlou (2002)
Trust2	I believe that this project is genuinely willing to provide me with the consideration promised in accordance with the terms and conditions of the contract, provided that the success of the project allows it and if it is reasonably possible.	
Trust3	I believe that I will receive a consideration from the crowdfunding project, which complies with the description given, as long as the success of the project allows it and is reasonably possible.	
Feas1	The business plan is feasible.	Chen et al. (2009), Dvir et al. (2003), Jun et al. (2011)
Feas2	This project includes a realistic business idea.	
Feas3	I believe that this business plan can be successfully implemented.	
Info1	The project page provides sufficient information when I try to make an investment decision.	Kim et al. (2008)
Info2	I am satisfied with the information on this project page.	

made their investment decision. However, in our case, that information was not available, as we had restricted access to only the platform's database. To tackle this issue, we developed items to measure how our participants perceived the collective judgments of the project. In fact, this approach is a more accurate representation of crowdfunders' perceptions because our items were formulated in a way that they did not take into account just the funding status of the participants, but also other cues they received from other investors on the project page. For example, the first item (Coll1) states: "Judging by the funding status of the project, the project is popular with the crowd."

All items were reflective indicators of the respective underlying constructs and measured on a 5-point Likert-scale, ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). We used exclusively positively worded items since negatively worded trust items are likely to factor separately into a conceptually different trust construct; namely, distrust (Lewicki, McAllister, & Bies, 1998; McKnight & Chervany, 2001; Wrightsman, 1991). To reduce the possibility of nonrandom errors, the preliminary instrument was pilot tested and reviewed by faculty and doctoral students for clarity, validity, completeness, and readability. This provided us with a first indication of whether our questionnaire measured the intended constructs in a reliable manner. As a result, we reworded several questionnaire items and redesigned a few elements of the project.

Results and discussion

To test our model, we employed structural equation modeling (SEM) using SPSS AMOS 25. As a multivariate covariance-based modeling approach, SEM allows simultaneous estimating of the measurement model for latent variables and their interrelationships in a structural model (Bollen & Long, 1993). As a rule of thumb, this method requires a sample size of at least 100 cases, with results becoming highly robust with over 200 cases. Alternatively, one can estimate the sample size more precisely based on the characteristics of the specific model. Wolf, Harrington, Clark, and Miller (2013) found, based on Monte-Carlo simulations, acceptable minimum sample sizes for SEM ranging from 30 to 460 cases. According to their model, the exact minimum number of cases depends on the number of factors, the number of indicators, the degree of missingness, and the magnitude of factor loadings and correlations. Based on these findings, we assume a model like ours should have a sample size of at least 150. Nicolaou and Masoner (2013) suggest a sample size of 159 for a model with six latent variables of which at least two are endogenous to the model and which are measured with about three observed variables. Hence, with 167 cases, we had a sample size at the lower bound, but still acceptable.

Measurement model

For the analysis of our data, our first step was to conduct an exploratory factor analysis (EFA), as this is a good way to test whether the items load on the expected latent constructs without constraining them to do so a priori. The inspection of the correlation matrices revealed the presence of many coefficients of 0.3 and above, indicating that our dataset was suitable for exploratory factor analysis (Tabachnick, Fidell, & Ullman, 2007). Moreover, the Kaiser-Meyer-Olkin (KMO) value was 0.794, exceeding the recommended value of 0.6 and

Bartlett's test of sphericity reached statistical significance (chi-square = 2360.53, $df = 253$), together indicating that we had distinct and reliable factors indeed (Yong & Pearce, 2013). Without KMO above 0.6 and a significant result from Bartlett's test, factor analysis would not be applicable.

The 23 items loaded on eight different factors (Table 2), with loadings of 0.7 or above on their respective intended factor and below 0.3 on the other factors (lower loadings are suppressed in the table). Moreover, the scree plot (see Figure A1 in the Appendix) also indicated eight distinct components with eigenvalues above one. Finally, all extracted components had a Cronbach's α above 0.7 (see Table 2), which indicates good reliabilities. We did not observe a combination of two components that correlated above 0.7 (not even 0.6) with each other, which indicates good discriminant validity. Hence, the EFA provides first support for our latent constructs.

Subsequently, we conducted a confirmatory factor analysis (CFA) to test whether the measurements were consistent with the constructs we theorized. CFA tries to fit the a priori proposed hypotheses regarding how the observed variables reflect the latent constructs to the empirical data. The model fit statistics are then an indicator for the quality of this measurement model. All observed variables were simultaneously estimated as indicators of one latent factor in the following form (Equation 1):

Table 2. Exploratory factor analysis results: Item loadings for eight distinct factors.

Loadings of items	Component							
	1	2	3	4	5	6	7	8
Fam1	0.917							
Fam2	0.950							
Fam3	0.948							
Coll1		0.898						
Coll2		0.910						
Coll3		0.867						
TP1			0.819					
TP2			0.834					
TP3			0.826					
TC1				0.817				
TC2				0.827				
TC3				0.835				
Dispo1					0.885			
Dispo2					0.857			
Dispo3					0.805			
Trust1						0.868		
Trust2						0.852		
Trust3						0.637		
Feas1							0.831	
Feas2							0.797	
Feas3							0.741	
Info1								0.865
Info2								0.861
Cronbach's α	0.943	0.900	0.872	0.851	0.829	0.861	0.794	0.834

Note: Principal component analysis. Rotation method: varimax with Kaiser normalization. Rotation converged in six iterations.

$$x_i = \lambda_i \xi_r + \delta_i \quad (1)$$

where x_i is the observed variable, λ_i the corresponding loading of this indicator on the factor ξ_r in the presence of some corresponding, but independent residual δ_i . After having eliminated the items with too low factor loadings and correlations, we reached to the final measurement model (Table 3). The fit statistics for the measurement model were satisfactory. The comparative fit index (CFI = .978) and the Tucker-Lewis-Index (TLI = 0.968) resulted above their respective recommended thresholds of 0.90 and 0.95 and the root mean square error of approximation (RMSEA) was with 0.043 below the threshold of 0.1 (Hu & Bentler, 1999). That means that both absolute and relative fit indices suggest an acceptable model fit.

As part of the CFA, we assessed convergent and discriminant validity as well as reliability of the constructs based on the Fornell and Larcker (1981) technique. The factors in both models demonstrated adequate convergent and discriminant validity. More specifically, for each of the latent factors the average variance extracted (AVE) was above 0.5 (see Table 4) and the composite reliability (CR) exceeded the recommended threshold of 0.7 for all factors (Hair, Black, Babin, & Anderson, 2013) (see Table 3).

Table 3. Confirmatory factor analysis results, reliability and validity statistics.

Construct (CODE)	Path	Estimates	SMC	Beta	CR	AVE
Trust in project (TRUST)					0.893	0.807
	Trust1 < — TRUST	1 (na)	0.751	0.867		
	Trust2 < — TRUST	1.071***	0.862	0.929		
Trust in platform (TR_PLAT)					0.840	0.724
	TP1 < — TR_PLAT	1 (na)	0.728	0.853		
	TP2 < — TR_PLAT	0.995***	0.72	0.849		
Trust in creator (TR_CREA)					0.773	0.631
	TC1 < — TR_CREA	1 (na)	0.542	0.736		
	TC2 < — TR_CREA	1.153***	0.72	0.849		
Disposition to trust (DISPOS)					0.831	0.622
	Dispo1 < — DISPOS	1 (na)	0.737	0.858		
	Dispo2 < — DISPOS	0.863***	0.549	0.741		
	Dispo3 < — DISPOS	0.888***	0.581	0.762		
Familiarity (FAMIL)					0.904	0.825
	Fam1 < — FAMIL	1 (na)	0.811	0.9		
	Fam2 < — FAMIL	1.018***	0.84	0.916		
Information quality (INFO_Q)					0.837	0.721
	Info1 < — INFO_Q	1 (na)	0.639	0.8		
	Info2 < — INFO_Q	1.12***	0.801	0.895		
Feasibility (FEASAB)					0.732	0.579
	Feas1 < — FEASAB	1 (na)	0.471	0.687		
	Feas2 < — FEASAB	1.206***	0.685	0.828		
Collective judgments (COLLECT)					0.900	0.752
	Coll1 < — COLLECT	1 (na)	0.688	0.829		
	Coll2 < — COLLECT	1.124***	0.869	0.932		
	Coll3 < — COLLECT	1.009***	0.699	0.836		

Notes: $n = 167$; *** $<.001$; (na) = not applicable to fixed parameters; $\chi^2 (107) = 139.178$; $\chi^2/df = 107$; $p = .02$ (Bollen-Stin bootstrap $p = 0.248$); TLI = 0.968; CFI = 0.978; RMSEA = .043 (90% confidence interval: .018–.061). SMC = squared mean correlation; CR = composite reliability; beta = standardized regression coefficient.

Table 4. Factor correlation matrix.

	1	2	3	4	5	6	7	8
ξ_1 Feasibility (FEASAB)	0.761							
ξ_2 Disposition to trust (DISPOS)	0.117	0.789						
ξ_3 Information quality (INFO_Q)	0.413	-0.061	0.849					
ξ_4 Collective judgment (COLLECT)	0.253	0.076	0.214	0.867				
ξ_5 Familiarity (FAMIL)	0.160	0.214	0.012	0.028	0.908			
η_1 Trust in project (TRUST)	0.379	0.093	0.435	0.326	0.072	0.899		
η_2 Trust in creator (TR_CREA)	0.423	0.023	0.440	0.214	-0.039	0.477	0.795	
η_3 Trust in platform (TR_PLAT)	0.397	0.324	0.347	0.270	0.215	0.536	0.463	0.851

Note: Square root of the AVE on the diagonal.

However, the measurement model violated the multivariate normality assumption, which can inflate or even bias the chi-square value. To improve our estimate of the model fit, we ran Bollen-Stine bootstraps. Based on the Bollen-Stine bootstrap, we derived an adjusted p -value of 0.248 (>0.05), indicating a good model fit.

Structural model

Figure 1 illustrates the results of our structural model, which can be described by the following formula (Equation 2):

$$\eta = B\eta + \Gamma\xi + \zeta \quad (2)$$

where η is the vector of endogenous variables, B is a matrix of coefficients of the η 's on each other, Γ is a matrix of the exogenous variables (vector ξ) on the endogenous variables, and ζ is a vector of random errors. In our model, we have three endogenous variables and five exogenous variables that are labeled as such with their corresponding index in Table 4.

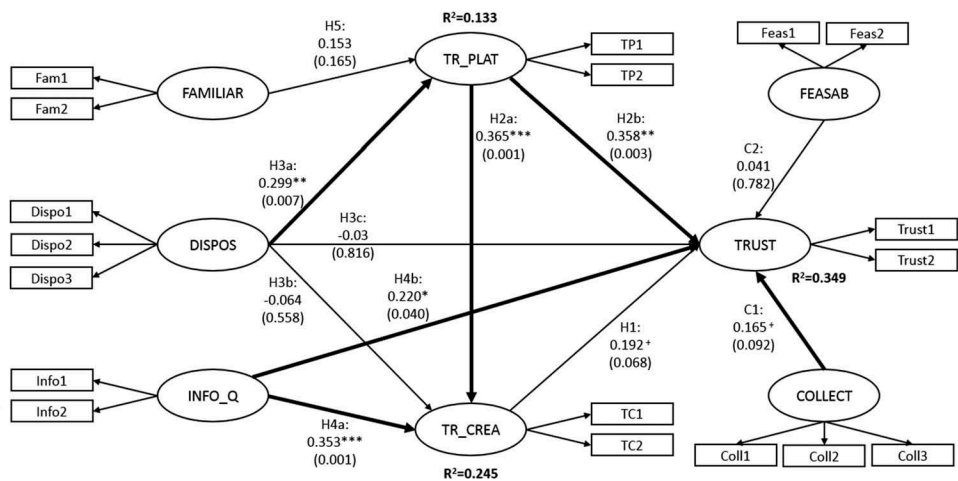


Figure 1. Structural model with results.

Given the chi-square value and the degrees of freedom of 113, the probability level was 0.002. According to that, we should have rejected the model. However, as with the CFA earlier, the model input did not meet the multivariate normality criterion, potentially causing an inflation of the chi-square statistics. Thus, we ran again a series of Bollen-Stine bootstraps and observed a bias corrected p -value of 0.06, indicating an acceptable model fit. All other model-fit indices exceeded the respective common cutoff values (chi-square/df = 1.524, CFI = 0.959, TLI = 0.945, and RMSEA = 0.056), demonstrating that the model exhibited a good fit with the collected data. Thus, it was possible to proceed to examine the path coefficients.

Our model explained 13.3, 24.5, and 34.9 percent, respectively, of the three endogenous variables, which are trust in the platform”, “trust in the project creator”, and “trust in the project”. As we calculated bootstrap-based bias-corrected estimates, we included p -values that are more robust, which provided us with the possibility of discovering not only the direct (shown in [Figure 1](#)) but also the indirect and total effects (see [Table 5](#)).

We obtained mixed results from our structural model, with some hypotheses confirmed and others rejected or only partially confirmed. To begin with, we found a direct effect that seemed to provide weak support for H1, that trust in the project creator affects trust in the project (beta = 0.192, p = .068). We also found direct effects that showed strong support for our H2, that trust in the platform affects both, trust in the project creator (beta = 0.365, p = .000) and in the project (beta = 0.358, p = .000). However, not only were the effects of H2 stronger than those of H1, but including the relationship of H2 explains part of the correlation between trust in the creator and trust in the project. In fact, constraining the relationship between trust in the platform and trust in the project creator to zero led to a significant positive direct effect like suggested in H1 (beta = 0.212, p = .036). Accounting for the effects of trust in the platform, the direct effect of trust in creator was much weaker.

These results confirm McKnight et al.’s (1998) view of a causal relationship between institution-based and interpersonal trust. Our results suggest the existence of a similar relationship in the context of lending crowdfunding. However, the impact of institution-based trust was not limited to

Table 5. Bootstrap-corrected estimates of indirect and total effects.

	FAMIL	COLLECT	INFO_Q	DISPOS	FEASAB	TR_PLAT	TR_CREA
Indirect effects							
η_3 Trust in platform				0.109**			
η_2 Trust in creator	0.056 ⁺			0.115*		0.07*	
η_1 Trust in project	0.066		0.068*				
Total effects							
η_3 Trust in platform	0.104			0.095**			
η_2 Trust in creator	0.041 ⁺		0.097**	0.096		0.112**	
η_1 Trust in project	0.046	0.093 ⁺	0.099**	0.093	0.124	0.096**	0.11 ⁺

Significance levels: + < 0.1; * < 0.05; ** < 0.01.

interpersonal trust. As our results show, it also affected trust in the project, leading to a spurious correlation between the trust in the project creator and trust in the project itself. We hence extend previous work on swift trust and trust transference (Jarvenpaa et al., 1999; Meyerson et al., 1996; Stewart, 2003), and show that trust is transferred from the lending crowdfunding platform to fund-seekers and their projects alike.

We found support for Hypothesis 3 only concerning the effect of disposition to trust on (H3a) trust in the platform ($\beta = 0.298$, $p = .001$), while the other two effects (that is, H3b and H3c) could not be confirmed. A possible explanation for the rejection of H3b and H3c is that trust in the creator and in the project is much more directly relevant to the perceived risk, and that this direct relevance leads to a more cognition-based trust formation that crowds out the disposition-based establishment of trust. In fact, we could confirm both parts of Hypothesis 4, regarding the effects of information quality on (H4a) the trust in the project creator ($\beta = 0.353$, $p = .000$) and (H4b) the project ($\beta = 0.220$, $p = .022$). Our results thus confirmed that trust in the project and trust in the project creator are based at least partly on the same situational cues; here, information quality.

H5, that familiarity affects trust in the platform, found only weak support in the results concerning the direct effect ($\beta = 0.154$, $p = .075$) and had to be rejected considering the total effect.

Further robustness checks

To improve our model robustness, we imputed the items deriving from the CFA into new bundles for each scale. This allowed us to run a simple ordinary least squares (OLS) regression and examine potential issues with multicollinearity and homoscedasticity.

In Table 6, we show the results of our OLS regression models and in Table 7 the correlations. In Models 1–3, the dependent variable is trust in the project, while in Model 4 it is trust in the project creator. In Model 5, the dependent variable is trust in the platform. Inspection of the variance inflation factors (VIF) showed that we faced no issues with multicollinearity. Additionally, the OLS regressions established the robustness of our SEM results when controlling for further variables that we had not included earlier such as gender, age, and income. The added controls did not become significant with the exception of age in Model 5. This indicates the existence of a generational issue in the sense that older investors found it more difficult to trust the new platforms even though they used them. It is worth noting that, also in the OLS, investors' disposition to trust had a highly significant and strong effect on their trust in the platform. Moreover, both trust in the platform and information quality had highly significant effects on both the trust in the creator and the project.

Table 6. OLS regression results.

Variables	1 (TRUST_i)		2 (TRUST_i)		3 (TRUST_i)		4 (TR_CREA_i)		5 (TR_PLAT_i)	
	Beta	Sig.	Beta	Sig.	Beta	Sig.	Beta	Sig.	Beta	Sig.
Constant		0.115		0.243		0.394		0.955		0.041
Gender	0.015	0.851	−0.009	0.892	−0.015	0.800	−0.015	0.804	0.030	0.683
Age	−0.128	0.105	−0.050	0.465	−0.023	0.703	0.097	0.121	−0.169	0.023
Income	−0.070	0.373	−0.098	0.136	−0.077	0.193	0.041	0.508	−0.37	0.607
COLLECT_i			0.193**	0.005	0.133*	0.032				
FEASAB_i			0.198*	0.013	0.044	0.559				
FAMIL_i			−0.002	0.975	−0.012	0.852			0.125 ⁺	0.097
INFO_Q_i			0.354***	0.000	0.187**	0.011	0.317***	0.000		
DISPOS_i			0.083	0.223	−0.034	0.605	−0.116 ⁺	0.087	0.320***	0.000
TR_PLAT_i					0.358***	0.000	0.484***	0.000		
TR_CREA_i					0.206**	0.010				
F (sig.)	1.356	(0.258)	10.785	(0.000)	14.990	(0.000)	19.481	(0.000)	13.110	(0.000)
F-change (sig.)	1.356	(0.258)	16.067	(0.000)	20.926	(0.000)	−	−	−	−
R-square (adj.)	0.024	(0.006)	0.353	(0.320)	0.490	(0.457)	0.422	(0.400)	0.192	(0.167)

Notes: N = 167, ⁺ < 0.10, * < 0.05, ** < 0.01, *** < 0.001, p-values in parentheses. VIF shown only for Model 3, which includes all variables and exhibits highest, but still unproblematic VIF values. Variables with the suffix _i are imputed item bundles based on the items used for the respective variables in the CFA and SEM model.

Table 7. Pearson correlations and significance levels.

	TRUST	2	3	4	5	6	7	8	9	10
2 GENDER	0.021 (0.392)									
3 AGE	-0.140 (0.036)	-0.084 (0.139)								
4 INCOME	-0.088 (0.129)	0.056 (0.235)	0.146 (0.03)							
5 COLLECT_i	0.354 (0.000)	0.012 (0.439)	-0.065 (0.2)	-0.081 (0.148)						
6 FEASAB_i	0.448 (0.000)	0.051 (0.255)	-0.204 (0.004)	0.024 (0.381)	0.297 (0.000)					
7 FAMIL_i	0.079 (0.155)	0.029 (0.355)	-0.215 (0.003)	-0.030 (0.349)	0.031 (0.345)	0.187 (0.008)				
8 INFO_Q_i	0.486 (0.000)	0.015 (0.424)	-0.048 (0.268)	0.081 (0.149)	0.239 (0.001)	0.492 (0.000)	0.014 (0.43)			
9 DISPOS_i	0.106 (0.087)	0.168 (0.015)	-0.082 (0.146)	0.001 (0.495)	0.086 (0.136)	0.141 (0.034)	0.241 (0.001)	-0.067 (0.195)		
10 TR_PLAT_i	0.599 (0.000)	0.099 (0.101)	-0.230 (0.001)	-0.063 (0.208)	0.302 (0.000)	0.479 (0.000)	0.240 (0.001)	0.399 (0.000)	0.369 (0.000)	
11 TR_CREAT_i	0.548 (0.000)	0.012 (0.439)	-0.012 (0.437)	0.049 (0.265)	0.248 (0.001)	0.515 (0.000)	-0.042 (0.294)	0.516 (0.000)	0.030 (0.348)	0.541 (0.000)

Notes: $N = 167$. Significance levels (one-tailed) in parantheses. Variables with the suffix _i are imputed item bundles based on the items used for the respective variables in the CFA and SEM model.

Conclusion

Theoretical contributions

The present study started with the observation that, although lending crowd-funding enjoys continuous growth and popularity, we still know relatively little about how trust in a lending crowdfunding project can be established. Trust enables crowdfunders to overcome perceptions of risk and uncertainty, and thus influences their intentions to support a project financially. Hence, building crowdfunders' trust in a lending crowdfunding project is a strategic imperative not only for fund-seekers, but also for crowdfunding platforms. This study developed and tested a model of trust formation and trust transference in the context of lending crowdfunding and brought up front some important implications for this particular crowdfunding type.

From an academic point of view, our work advances existing literature on trust and lending crowdfunding in several ways. First, we contribute to the extension of the theory of trust transfer (Stewart, 2003) and swift trust (Meyerson et al., 1996) to an area that has not been explored; namely, crowdfunding. Our results show that crowdfunding platforms are the central trust-building actors. Not only do they influence crowdfunders' trust in the project creator, but also the trust in the lending project itself (directly and mediated through the trust in the creator). In other words, we observed swift trust and trust transference effects in lending crowdfunding. Bearing in mind that one of the main indicators of the validity of a theory is its applicability in

a variety of contexts, our findings are valuable to trust transference and swift trust literature.

Second, our study advances current knowledge on online trust in the digital economy (for example, Jarvenpaa et al., 1998, 2004) by validating the role of trust in an online investment context, as well as by establishing the general factors that form this trust. Specifically, our structural trust-building model described the leading role of lending crowdfunding platforms, as conveyors of institution-based trust, in the formation of project trust, confirming Pavlou and Gefen's (2004) results on the importance of online intermediaries (lending crowdfunding platforms in our case) for online trust building. Our results demonstrate that the transference of trust from the lending platform to the lending project and the creator reflects the effectiveness of the trust-building measures put in place by the platform. Crowdfunders using a lending platform assume that the platform has employed internal procedures to screen out and restrict cheaters and opportunists. The degree of effectiveness of such investor protection measures should moderate this effect.

Besides the role of the platform, we offered several new insights into the role of the creator, as well as other key factors in the formation of trust in a lending crowdfunding project. Specifically, we found that the quality of the presented information in a lending crowdfunding project signals trustworthiness and thus helps to build trust in the project. This confirms previous research that hinted at similar directions (Ahlers et al., 2015). Additionally, the present study departs from the traditional dyadic view of trust by examining trust in a crowdfunding project, in its creator, and in the platform as three distinct components of trust in the context of crowdfunding. Moreover, this research highlights the role of familiarity for institution-based trust. While familiarity has been found to be vital for trust formation in other research arenas (for example, online shopping; Gefen, 2000), this study is pioneering in examining its role in the context of crowdfunding. Additionally, we showed that crowdfunders' disposition to trust does not influence directly perceived project trust. It does, however, influence the trust in the platform, demonstrating again the fundamental role that the platform plays in a project's success.

Finally, we contribute to the emerging literature on uncertainty and information asymmetries in crowdfunding (Colombo et al., 2015; Herzenstein et al., 2011; Kuppaswamy & Bayus, 2017) and open up the field for new research focusing on trust as a core element of crowdfunding. We found that the perceived quality of information signals trustworthiness and, thus, helps to build trust in both the creator and their project. Parallel to this, our study is relevant to other crowd-related phenomena (Franzoni & Sauermann, 2014), and thus our findings encourage a new research stream that will extend and further analyze the role of trust in crowdsourcing and citizen science.

Implications for practice

Our results have valuable implications for crowdfunding practitioners in general, and platform managers in particular. As the present study shows, project creators need to consider two important factors to increase investors' trust in their project. At the start, choosing an appropriate crowdfunding platform that will convey trustworthiness and security to crowdfunders will increase the perceived trust in the project creators and the project itself. At the same time, fund-seekers need to emphasize their qualifications, capabilities, and goodwill to further increase crowdfunders' trust in them. Moreover, they should accentuate their professional experience and solid educational background to provide evidence of their capabilities. The perceived feasibility of the project idea also plays a significant role; therefore, providing detailed and convincing business plans, market predictions, or even endorsements from professional consultants appraising the business idea would increase perceived project trust and thus funding success. Additionally, the fact that collective judgments have an impact on the overall trust suggests that fund-seekers may need to use a range of social capital-based methods to build initial trust. Thus, endorsements or recommendations from other crowdfunders or even prominent individuals who can play the role of opinion leaders may be utilized to enhance overall trust in the project and, thus, its likelihood of success. Confirming existing literature on signaling in crowdfunding (Ahlers et al., 2015; Courtney et al., 2017; Moss et al., 2015), we also propose that it is fundamental to build a satisfactory initial funding status to convince potential crowdfunders.

Crowdfunding platforms should utilize the findings of this study to improve the design of their trust-building mechanisms ensuring the creation of a trustworthy investment environment. Given the inherent uncertainties of crowdfunding, institution-based mechanisms will make the difference between confident and satisfied crowdfunders that wish to continue transacting in the platform and hesitant investors that prefer traditional routes. Therefore, actions such as explaining the screening processes in more detail, or even offering guarantees and insurances, can improve the value offered by the platforms. In summary, our study offered valuable insights into the nature and antecedents of crowdfunders' trust in a project. Thus, it provides fund-seekers with a set of manageable strategic levers to build such trust, which will promote greater acceptance of crowdfunding.

Limitations and further research

This study provides valuable insights into trust in a lending crowdfunding project, but it is not without limitations. To begin with, the focus of the present study is lending crowdfunding and, thus, our results apply to that particular crowdfunding type. Despite the fact that lending crowdfunding has some

similarities with other types, especially equity crowdfunding, we cannot claim with confidence generalizability of our results to all types of crowdfunding. We could cautiously suggest generalizability of our results to equity crowdfunding; however, testing our model in other crowdfunding contexts is necessary. We expect that different factors will influence trust formation, especially in a reward-based crowdfunding project, considering that the complexity of the investment process as well as the investors' involvement differ. Moreover, in our model, we had to focus on specific influencing factors, as it was practically impossible to test for all possible factors in a single study. Further factors, such as the business plan or the quality of the team, might influence the trust in the project, either directly or indirectly, as antecedents of the trust-building factors we established in our model. Additionally, we could not test Zheng et al.'s (2016) suggestion that an entrepreneur's prior success in crowdfunding plays a role in the trust formation in reward-based crowdfunding. Unlike other platforms (for example, Kickstarter) that someone can search for all campaigns launched on that particular platform by a specific project creator, in our platform this was not an option. The lack of that information represents a limitation, and future research on that is recommended. Finally, our sample size was within the usual range of SEM models, but at its lower bounds. This limits statistical power and potentially leads to the rejection of actually true relationships (Type II error).

The above-mentioned limitations offer fruitful avenues for further scholarly inquiry. A first promising research avenue is to explore potential commonalities and differences in the trust formation and transference among all types of crowdfunding. Testing our model in other crowdfunding contexts might lead to the discovery of different relationships due to the peculiarities of each crowdfunding type. Second, our study calls for further research to explore additional factors that might influence trust in a project as well as its antecedents. For instance, a follow-up study to explore what forms trust in a crowdfunding platform is needed. Additionally, a more complete understanding of trust in crowdfunding could emerge from consideration of its evolution over time within a relationship since the level of trust will evolve as the parties interact. Moreover, the role of crowdfunding assurance instruments that provide capital insurance to crowdfunding investments needs more scholarly attention.

Acknowledgments

We gratefully acknowledge the valuable feedback and support from Karsten Wenzlaff and Sebastian Spaeth as well as two anonymous reviewers. Moreover, we want to thank the crowdfunding platform for their valuable cooperation.

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Appendix

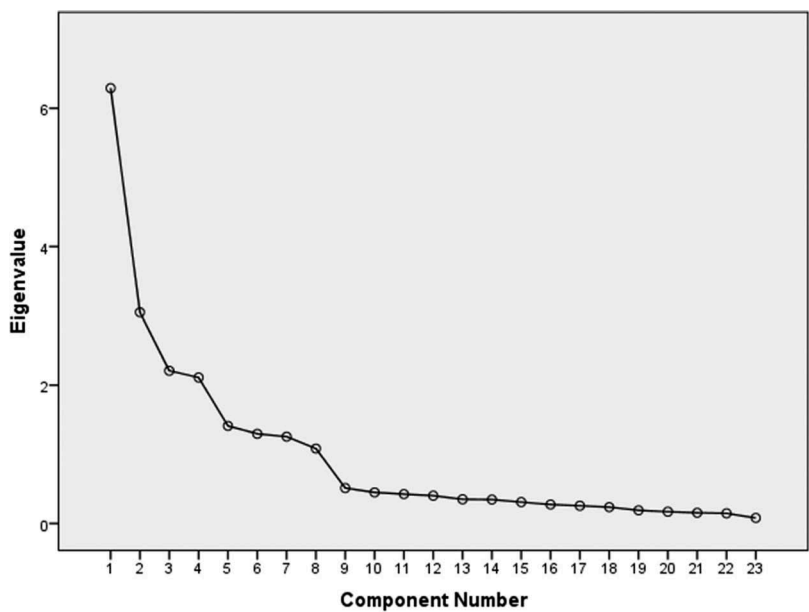


Figure A1. Screen plot of Eigenvalues for all components.