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Investor communication in equity-based crowdfunding: a qualitative-empirical study

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Abstract

Purpose – This study's aim is to investigate the role of investor communication in equity-based crowdfunding. The study explores whether and how investor communication can reduce information asymmetries between investors and new ventures in equity-based crowdfunding, thereby facilitating the crowd's investment decisions.

Design/methodology/approach – This paper follows an exploratory qualitative research approach based on semi-structured interviews with 23 market participants in equity-based crowdfunding: 12 investors, 6 new ventures and 5 third parties (mostly platform operators). After analyzing, coding and categorizing the data, this paper developed a theoretical framework and presented it in a set of six propositions.

Findings – The results indicate that the venture's overall impression – especially perceived sympathy, openness and trustworthiness – is important to reduce perceived information asymmetries of investors in equity-based crowdfunding. To communicate these soft facts, personal communication seems to be replaced by pseudo-personal communication over the Internet (e.g. videos, investor relations channels and social media). In addition, the communications of third parties (e.g. other crowd investors, professional and experienced investors and other external stakeholders) influence the decision-making process of investors in equity-based crowdfunding. Third-party endorsements reduce the perceived information asymmetries and lower the importance of pseudo-personal communications by the venture.

Originality/value – Prior research shows that investor communication reduces information asymmetries between companies and investors. Currently, little is known about the role of investor communication in equity-based crowdfunding. This study focuses on the role of investor communication to reduce the perceived information asymmetries of investors in equity-based crowdfunding.

Keywords Crowdfunding, Equity-based crowdfunding, Investor communication, New venture financing

Paper type Research paper

1. Introduction

Investor communication has been demonstrated to reduce information asymmetries between companies and investors in various financial markets (Bassen *et al.*, 2010; Hoffmann and Fieseler, 2012). Currently, however, we know little about the role of investor communication in crowdfunding. The present paper attempts to fill this gap with a focus on equity-based crowdfunding. Investor communication, often referred to



as investor relations, is understood as the disclosure of financial and non-financial historic, current and future information about a company through different media to establish or maintain relationships with prospective and present investors, analysts and stakeholders (Dolphin, 2004; Hoffmann and Fieseler, 2012). Most investor communication research focuses on the formalized, mostly anonymous, communication between publicly traded companies and their investors or financial analysts (Bassen *et al.*, 2010; Dolphin, 2004; Kollmann and Kuckertz, 2006). The results from this line of research cannot be used to inform new ventures about their investor communication strategy. With regard to new ventures, investor communication must cope with high uncertainty regarding performance, technology and market demands (Parhankangas and Ehrlich, 2013; Shane and Cable, 2002). To reduce information asymmetries in new venture financing, investor communication is characterized by interpersonal relationships between the entrepreneur and the venture's investors (Kollmann and Kuckertz, 2006; Landström, 1992; Parhankangas and Ehrlich, 2013; Sapienza and Korsgaard, 1996).

Crowdfunding[1] democratizes new venture financing and seeks to obtain financial resources through an open call over the Internet – typically organized by a crowdfunding platform – from a large number of individual investors (the “crowd”) (Belleflamme *et al.*, 2014; Hemer *et al.*, 2011). The crowd acts in the same context as “traditional” private equity providers such as business angels (BAs) or venture capitalists (VCs); it invests in new ventures with little verified information, low transparency and high risks. However, the crowd differs from BAs or VCs in the sense that it forms a large group of heterogeneous and often anonymous investors (Heminway, 2014; Mollick, 2013), investing mostly small amounts of money through the Internet. They are characterized by their preference to participate in innovative behavior and are attracted by the usage of interactive tools like social media channels (Ordanini *et al.*, 2011). The combination of investment context and investor characteristics challenges new ventures seeking finance through crowdfunding to find appropriate strategies to communicate their legitimacy and credibility (Frydrych *et al.*, 2014; Parhankangas and Ehrlich, 2013; Shepherd and Zacharakis, 2003; Zimmerman and Zeitz, 2002).

Currently, we know little about how new ventures can master this important challenge. Providing an answer to this question is relevant because financing through crowdfunding has gained importance in recent years. The US crowdfunding market (including all types of crowdfunding), for example, has grown from USD 780 million (m) in 2011 to approximately USD 1.6 billion (bn) in 2012. Market development in Europe was also dynamic with an increase of 65 per cent to USD 945m in the same period. For 2013, the total global funding volume was forecasted to be USD 5.1bn (2011: 1.5bn; 2012: 2.7bn) (Massolution, 2013). The European crowdfunding markets in Austria, Finland, Germany, The Netherlands, Sweden and the UK are mainly driven by equity-based crowdfunding (ECN, 2014). Our research focuses on the German equity-based crowdfunding market, which grew from €0.5 m in 2011 to €31.8 m in the third quarter of 2014 (Crowdinvesting Monitor, 2014). Although the volume of the crowdfunding market is still small compared to other sources of new venture financing (EVCA, 2014; OECD, 2014), crowdfunding offers new ventures the opportunity to close the crucial early-stage financing gap, which has evoked particularly great interest in theory and practice

(Belleflamme *et al.*, 2014; Cumming and Johan, 2013; Hemer *et al.*, 2011; Mollick, 2014; Moritz and Block, 2014; Ordanini *et al.*, 2011).

Our paper theorizes on the role of investor communication in equity-based crowdfunding. Based on a qualitative research design, we develop a conceptual model (summarized in six propositions) of investor communication in equity-based crowdfunding. Our exploratory study is based on 23 in-depth interviews with the key market participants in equity-based crowdfunding: investors (12), new ventures (six) and third parties (five), such as platforms. By analyzing the views of the different market participants, we were able to triangulate our results across different perspectives, leading to a deep understanding of the phenomenon.

Our findings indicate that the overall impression delivered by the entrepreneur and, in particular, personal factors such as sympathy, openness and trustworthiness, reduce the perceived information asymmetries of investors in equity-based crowdfunding. However, because of the large group of investors, it is impossible to establish interpersonal relationships – which are typically required to communicate such soft facts – with every investor. Personal communication is replaced with pseudo-personal forms of communication, such as videos or social media messaging. Our analysis also demonstrates that investors in equity-based crowdfunding are influenced by other market participants in their decision-making process. Third-party endorsements reduce the perceived information asymmetries and lower the importance of (and need for) pseudo-personal communication by the venture. We identify the boundaries of our conceptual model and propose that the importance of pseudo-personal communication and peer principal endorsements is reduced in case of opinion leaders.

Our findings are limited by the specific institutional context of our study. We focus on the German equity-based crowdfunding market with its specific regulatory environment. Although a crowdfunding-specific regulation does not (yet) exist in Germany, market participants have to be in line with the general German financial market regulations, which impacts, among others, the financial instruments used, the funding limits and investor rights (Hornuf and Schwienbacher, 2014; Klöhn and Hornuf, 2012). Therefore, some of our findings may be limited to the specific German institutional context and may not necessarily apply to other countries and other crowdfunding models or markets.

Our study contributes to research in entrepreneurial finance in four ways. First, we contribute to the scarce research on investor communication for new ventures (Kollmann and Kuckertz, 2006; Landström, 1992; Mason and Harrison, 2003). Our findings suggest that common investor communication strategies in entrepreneurial finance (e.g. intense personal discussions and face-to-face meetings between the entrepreneur and the capital providers) are not feasible in equity-based crowdfunding and are replaced with pseudo-personal communication. Our study thereby extends the literature on the importance of impression management by entrepreneurs (Mason and Harrison, 2003; Nagy *et al.*, 2012; Parhankangas and Ehrlich, 2013; Zimmerman and Zeitz, 2002). We find that investors in equity-based crowdfunding are influenced – similar to BAs (Clark, 2008; Mason and Harrison, 2003) – by the overall impression of the entrepreneur.

Second, we contribute to the literature on herding behavior in financial markets (Banerjee, 1992; Bikhchandani *et al.*, 1992; Devenow and Welch, 1996; Shiller, 2000; Steiglitz and Shapiro, 1998). Our analysis shows that investors' decisions in

equity-based crowdfunding are influenced by the funding decisions of peer principals – that is, peer investors. Observing prior investments by peers reduces information asymmetries and the importance of pseudo-personal communication by the entrepreneur.

Third, we contribute to the literature on certification and reputation in financial markets (Block *et al.*, 2014; Chemmanur and Fulghieri, 1994; Dranove and Jin, 2010; Hsu, 2004; Kim and Viswanathan, 2013; Megginson and Weiss, 1991; Stuart *et al.*, 1999). Our data suggest that superior principal endorsements – for example, by VCs, BAs, customers or business partners – are understood as quality assurance measures that reduce the perceived uncertainty of investors in equity-based crowdfunding.

Finally, we contribute to the emerging literature on crowdfunding as a new form of early-stage venture financing (Ahlers *et al.*, 2013; Belleflamme *et al.*, 2014; Cumming and Johan, 2013; Mollick, 2014; Frydrych *et al.*, 2014; Ordanini *et al.*, 2011). Our research is one of the first empirical studies on equity-based crowdfunding. We contribute to the crowdfunding literature by taking an investor relations perspective and discussing the role of different investor communication strategies in equity-based crowdfunding.

Several practical implications can be drawn from our study. For entrepreneurs that seek financing via equity-based crowdfunding, our results underline the relevance of revealing their personality in their communication efforts. Furthermore, entrepreneurs should actively communicate the involvement of external capital providers and expert judgments from key customers or suppliers to the crowd. The video that is uploaded on the crowdfunding platform is of particular importance in this context because it replaces personal contacts with the entrepreneur. In addition to explaining their business model and revealing their personality, entrepreneurs should strive to integrate references and certificates from third parties, ideally from experts or opinion leaders. Investors in equity-based crowdfunding, in turn, should try to understand ventures' investor communication strategies and develop a realistic evaluation of ventures seeking financing.

The paper is structured as follows. Section 2 briefly reviews prior research on investment decisions in crowdfunding. Section 3 describes our data and method, including the sample, the interview process and data analysis. Section 4 presents our findings and discusses them in regard to prior research. We use our findings to develop a conceptual model of investor communication in equity-based crowdfunding, which is summarized in six propositions. Section 5 concludes the paper.

2. Review of the literature

In recent years, particularly since 2010, equity-based venture financing through an online crowd (equity-based crowdfunding) has undergone rapid development (Tomczak and Brem, 2013). Other forms of crowdfunding, distinguished by their aims and modes of return – donation-, reward- and lending-based crowdfunding (peer-to-peer [P2P] lending[2] – already started to emerge in 2000, with “ArtistShare” being the first online crowdfunding platform in the creative industry. Irrespective of the particular crowdfunding model, crowd investors are faced with high uncertainties about the project outcomes and the reliability and credibility of the project initiators (Moss *et al.*, 2014). Prior research has demonstrated that crowd investors utilize information provided by the project initiator or by third parties to facilitate investment decisions.

Different studies focusing on information provided by the project initiator found that the preparedness of the entrepreneur, visible, for example, through the quality of the information material provided or through regular updates on the project, positively influences the financing decisions of investors in reward-based crowdfunding (Mollick, 2014; Ward and Ramachandran, 2010). In equity-based crowdfunding, it is found that ventures with more board members, with higher levels of management education and better networks are more successful in the funding process (Ahlers *et al.*, 2013). Other factors that influence funding success are a clear exit strategy, the existence of a financial plan and the age of the capital-seeking venture (Ahlers *et al.*, 2013). Cumming and Johan (2013) studied the desired level of regulation and disclosure for equity-based crowdfunding in Canada. They conclude that the ease of cross-jurisdictional investments through the Internet is likely to enforce investors' demands with the consequence of more regulation and disclosure in the market.

However, as prior research shows, not only hard facts about the projects but also soft facts are important to reduce information asymmetries in crowdfunding. In P2P lending markets, for example, the communication of soft facts provided by the borrower and the narratives used play an important role in the financing decision (Berkovich, 2011; Duarte *et al.*, 2012; Herzenstein *et al.*, 2011; Michels, 2012; Ravina, 2012). It is found that borrowers who appear more trustworthy by providing voluntary information about themselves or the funding request tend to have a higher funding probability and lower interest rates.

Other studies have demonstrated that communication activities by peers are relevant for the investment decision of crowd investors (Burtch, 2011; Herzenstein *et al.*, 2011; Smith *et al.*, 2013; Ward and Ramachandran, 2010; Zhang and Liu, 2012). Herzenstein *et al.* (2011) and Zhang and Liu (2012) identify herding behavior in P2P lending markets. They conclude that this behavior is the result of observational learning because it reduces the default rates of loans. In addition, peer effects can be the result of direct endorsements by invested peers ("skin in the game") or friends of the project initiators and by the size of their social network (Hildebrand *et al.*, 2013; Lin *et al.*, 2009; Liu *et al.*, 2013; Mollick, 2014). The amount of accumulated capital (Agrawal *et al.*, 2011) and the number of backers, especially early in the funding process, have been found to be good predictors for funding success (Colombo *et al.*, 2014). In addition to studies on social influence, it has been demonstrated that crowd investors are affected by third parties who are perceived to be better informed about the project. Reputable investors investing in a project (Kim and Viswanathan, 2013) and established crowdfunding platforms publishing and pushing the project were identified as positive indicators for funding success (Belleflamme *et al.*, 2014; Heminway, 2013).

Even though crowd investors share some common characteristics such as utilizing the Internet regularly, enjoying participating in innovative behavior, being attracted by the usage of interactive tools like social media and expecting a financial or non-financial return, the motives of crowd investors depend on the particular crowdfunding model and result in different information needs (Cholakova and Clarysse, 2014; Gerber *et al.*, 2012; Ordanini *et al.*, 2011). Furthermore, different business models of platforms (Chen *et al.*, 2013; Cumming *et al.*, 2014; Wash and Solomon, 2014) and specific project characteristics influence the funding decisions of investors (Belleflamme *et al.*, 2013; Lehner, 2013; Ordanini *et al.*, 2011). However, even if crowd investors are acting in the

same context and on the same platform, their different motives to participate in crowdfunding can result in different information strategies and behavior (Lin *et al.*, 2014).

In sum, although the literature offers perceptions about the crowd and how it might reduce information asymmetries, academic research of crowdfunding is still in its infancy. This is even more true for equity-based crowdfunding. Most of the published studies focus on donation-, reward- and lending-based crowdfunding. Yet, equity-based crowdfunding might be driven by different dynamics. In particular, the drivers of investment decisions can be different compared to other crowdfunding models. To date, little research has been undertaken to understand how investor communication works, especially in equity-based crowdfunding. Our study attempts to fill this gap by identifying the information requirements of the crowd facilitating their investment decisions.

3. Data and method

3.1 Data collection and sample

We use an exploratory (Strauss and Corbin, 1996) and inductive research design and move from specific observations to a more generalized view to understand the behavior of market participants in equity-based crowdfunding. We gathered our data through interviews with key market participants, that is, crowd investors, new ventures and third parties (equity-based crowdfunding platforms and market experts). This enabled us to triangulate our findings and to assess whether our explanations are congruent across market participants or whether differences exist between interviewee groups (Denzin, 1978). In addition, we gathered secondary data on equity-based crowdfunding development to reflect and support our results. This approach allowed us to generate an understanding from empirical data to explain, predict and interpret market behavior (Glaser and Strauss, 1967). Consistent with the idea of building theory, we chose our interview sample based on theoretical principles rather than statistical considerations (Strauss and Corbin, 1996), especially in gathering material from different market players with different characteristics (i.e. stock market and crowdfunding experience, industry and investment characteristics). The interview process was continued until the emergent categories and relationships tended to converge and a status of saturation was reached (Glaser and Strauss, 1967).

To identify interviewees, different strategies were applied and combined. We contacted possible interviewees directly or utilized the recommendations of others. New ventures were identified through their crowdfunding activities on the three major German equity-based crowdfunding platforms[3]. Altogether, we performed 23 interviews with 12 investors, 6 representatives of new ventures and 5 third parties, including 3 representatives of platforms and 2 market experts. The interviewed investors had been involved in between 1 and over 30 equity-based crowdfunding projects. Most of the investors had prior experience with stock market investments. Of the 23 interview partners, 22 were male[4] and 17 were under 40 years old. Furthermore, our interview partners differed in their academic and professional education, employment status and industry environment. Table I summarizes the characteristics of our interviewees.

Type	Industry	Profession	Employment	Education/schooling	Age category (years)	Gender	Stock market experience	Crowdfunding experience	Length of the interview (in minutes)
Investor 1	n.a.	Managing director	Self-employed	Certificate of secondary education	50+	M	No	> 10	20:01
Investor 2	Transportation and public utilities – transportation by air	Flight attendant	Employee	Business administration (MBA)	30-40	M	Yes	> 10	25:22
Investor 3	Services – computer programming services	Administrator product marketing and services	Employee	Business administration and computer science (VWA)	30-40	M	Yes	> 30	59:18
Investor 4	Finance, insurance, real estate	Relationship manager bank	Employee	Business administration (BA)	20-30	M	Yes	Several	28:24
Investor 5	Services – computer programming services	IT specialist	Employee	n.a.	30-40	M	No	4	24:06
Investor 6	Services – business consulting services	Consultant	Employee	Mathematician (Dipl.)	20-30	M	Yes	> 15	28:43
Investor 7	Services – financial services	CFO	Employee	Computer science (Dipl.; MBE)	40-50	M	Yes	3	33:08
Investor 8	Manufacturing – chemical/pharmaceutical	IT controller	Employee	Finance and accounting (MA)	20-30	M	Yes	> 20	25:11
Investor 9	Services – electronic shopping	Online marketing	Employee	Business administration (Dipl.)	40-50	M	Yes	> 10 (D)	47:16
Investor 10	Education; insurance	Student	Student	Business administration (MA)	20-30	M	Little	> 20 (UK) > 30	40:34
Investor 11	Education	University professor	Employee	Industrial engineer/Business informatics	40-50	M	Yes	1	39:45
Investor 12	Services – business consulting services	Consultant	Self-employed	Business administration (Diploma)	30-40	M	Yes	> 30	36:58
New Venture 1	Retail trade – food stores	Founder and managing director	Self-employed	Management master	30-40	M			37:18
New Venture 2	Services – miscellaneous (Internet information platform)	Founder and managing director	Self-employed	PhD business administration; mathematician (Diploma)	30-40	M			28:50
New Venture 3	Services – miscellaneous (Tourism)	Founder and managing director	Self-employed	Politics/History (BA)	30-40	M			41:39
New Venture 4	Services – computer programming services	Founder and managing director	Self-employed	Business informatics (BA); General management (MBA)	30-40	M			32:17

(continued)

Table I.
Characteristics of
interviewees

Table I.

Type	Industry	Profession	Employment	Education/schooling	Age category (years)	Gender	Stock market experience	Crowdfunding experience	Length of the interview (in minutes)
New Venture 5	Services – personal Services	Founder and managing director	Self-employed	Business administration (BA)	30-40	M			52:11
New Venture 6	Retail Trade – hobby, toy and game shop	CFO, co-founder	Self-employed	Industrial engineer (Diploma)	30-40	M			51:17
Third Party 1	Services – personal services	Founder and managing director	Self-employed	PhD	40-50	M			14:34
Third Party 2	Services (Crowdfunding Platform)	Corporate communications	Employee	Communication management (MA)	20-30	F			25:55
Third Party 3	Education	Chair of media management and entrepreneur; managing director of startup center	Employee	Computer science (Diploma); PhD	50+	M			34:00
Third Party 4	Services (Crowdfunding Platform)	Founder and managing director	Self-employed	Business informatics (Diploma)	30-40	M			24:53
Third Party 5	Services (Crowdfunding Platform)	COO	Employee	Corporate management and economics (MA)	30-40	M			44:40

3.2 Interview process

We conducted semi-structured interviews with open-ended questions to ensure free expression of the views and experiences of market participants. To develop our interview guideline and to challenge and triangulate our initial findings, we studied market cases of already completed and ongoing equity-based crowdfunding projects and prior research on crowdfunding. Furthermore, we considered evidence of decision criteria and communication requirements from related research fields, such as research about the decision criteria of VCs and BAs. In a nutshell, we tried to identify possible influence factors for the investment decisions of investors in equity-based crowdfunding and included these in a predefined interview guide (Miles and Huberman, 1994). We first asked about the interviewee's relation to crowdfunding and the main motives for getting involved in crowdfunding to obtain a deeper understanding of the respondent's motivation and role regarding crowdfunding. Instead of presenting a fixed set of investment criteria, we first asked the respondent openly about the perception of key drivers and influence factors for investing in ventures seeking equity-based crowdfunding. We then delved deeper into these unprompted drivers mentioned by the interviewees and further investigated the opinions of our interview partners by requesting further elaborations on specific aspects. Afterward, we enquired about criteria from our interview guide that were not already mentioned by the respondent. This approach not only made sure that the respondent was not influenced by the researcher's prior convictions but also that all pre-determined issues were covered in the interview (Gioia *et al.*, 2012; Miles and Huberman, 1994).

Because qualitative research is an iterative process and we had different types of interviewees, our wording changed slightly over time and in relation to the respondent (Mayring, 2010). Furthermore, we added new questions during the interview process to cover important issues that surfaced in earlier interviews (Gioia *et al.*, 2012). Interviews were conducted by the same researcher during two rounds. In the first round, the interviews took place both in person (on two occasions) and by telephone (on 15 occasions) from April to August 2013. In the second round, an additional six interviews were performed by telephone in August 2014. The interviews lasted between 14 and 60 minutes, and a total of approximately 14 hours of interview material was recorded and later transcribed.

3.3 Data analysis

In the course of our study, we simultaneously gathered material and coded and categorized it (Glaser and Strauss, 1967). For this purpose, we worked with MaxQDA, a software program that supports qualitative research. The initial list of codes was based on our prior knowledge (Miles and Huberman, 1994). While working with the material, we extensively expanded our initial coding system to cover all relevant aspects mentioned by the respondents. In the next step, we combined similar codes and neglected others that were found not to be informative for the emerging concepts (Gioia *et al.*, 2012). Overall, we followed an iterative, inductive and ongoing process to develop our final coding system and finally aggregated the codes into a meaningful system of higher-dimensional categories (Mayring, 2010; Miles and Huberman, 1994). The coding of our data ranged from short phrases to whole paragraphs to keep the statements of our respondents in their original context. Data sampling continued until theoretical

saturation was achieved. The researchers agreed that no additional interview material was required to extend the properties of the categories (Glaser and Strauss, 1967).

Great care was taken to ensure the reliability of the coding. Once the first draft of the final categorization scheme was developed, a second person who was not involved in the study but informed about the coding scheme independently coded approximately 60 per cent of the interview material of the first round. After a comparison of the results, further discussions about the categorization scheme were held, resulting in modifications to the scheme. To further strengthen the reliability of our study, we spent considerable time discussing and interpreting the data to reach a consensus regarding data interpretation. This resulted in further adaptations of the categorization scheme until all researchers were satisfied with the result.

The coded and categorized data were used to conduct a thematic content analysis through an inductive process (Mayring, 2010), in which we progressed from coding and categorization to abstraction to develop a “theoretical framework – the core of the emerging theory” (Glaser and Strauss, 1967, p. 40). We present our theory by formulating a set of six propositions (Whetten, 1989) on the role of communication instruments to reduce the information asymmetries of investors in equity-based crowdfunding.

4. Findings and discussion

4.1 *The importance of pseudo-personal communication*

Prior research shows that investor communication can reduce information asymmetries between a company and its investors. The findings of investor communication research for publicly traded companies emphasize that it should not just be the disclosure of mandatory financial information but a two-way communication process that creates transparency for investors and helps the company obtain a reputation of trustworthiness and accountability (Dolphin, 2004; Gabbioneta *et al.*, 2007; Highhouse *et al.*, 2009; Laskin, 2009; Mazzola *et al.*, 2006). Although investor communication of new ventures lacks the required information to use such methods, it still follows the same objectives. New ventures must convince investors of their quality and legitimacy to gain their trust (Aldrich and Fiol, 1994; Clark, 2008; Feeney *et al.*, 1999; Hall and Hofer, 1993; Mason and Stark, 2004; van Osnabrugge, 2000). Consequently, communication between new ventures and traditional risk capital providers is characterized by establishing personal relationships to communicate on a frequent and open basis that is time-consuming for all participants (Kollmann and Kuckertz, 2006; Landström, 1992; Sapienza and Korsgaard, 1996). In equity-based crowdfunding, however, new ventures are faced with a large group of heterogeneous and often anonymous investors who typically do not have the resources and expertise to evaluate the risks of investment proposals in detail (Kim and Viswanathan, 2013; Mollick, 2013). In addition, they possess a specific set of characteristics like the preference to utilize new technologies to gather information and to invest money (Ordanini *et al.*, 2011). However, how should a venture seeking equity financing through the crowd communicate with the large number of (potential) investors who typically provide only small amounts of money but nevertheless face high information asymmetries that need to be reduced to facilitate an investment?

All interviewees stressed that a business description and a business plan is needed to make an investment decision. A set of standard information has to be provided to

convince investors of the preparedness and credibility of the new venture. Still, it remains questionable whether the content is, in fact, digested in detail and of actual importance for the investment decision (Kirsch *et al.*, 2009; Nagy *et al.*, 2012; Parhankangas and Ehrlich, 2013; Pollack *et al.*, 2012) (Table II). Looking at the speed of some equity-based crowdfunding transactions, it is evident that a detailed analysis of the business plan, at least prior to the investment decision, could not have been performed. For example, the venture Refined Investment collected €100,000 from 140 crowd investors in just 52 minutes. Protonet convinced 220 investors to contribute a total of €200,000 in only 48 minutes. This anecdotal evidence is consistent with prior research of decision-making by VCs and BAs, demonstrating that such investors use particular heuristics because of time and knowledge limitations, to evaluate investment opportunities (Maxwell *et al.*, 2011; Olsen, 2010). However, the question remains regarding which heuristics are used by investors in equity-based crowdfunding and how they can be influenced by the entrepreneur.

Prior research from other sources of new venture financing reveals that direct personal communication facilitates investment decisions (Landström, 1992; Sapienza and Korsgaard, 1996). Direct communication, however, is difficult to implement in crowdfunding. The entrepreneurs in our sample stressed that only approximately 10 per cent of investors can be considered active investors, seeking involvement and communication on a personal level. However, even maintaining direct communication with a relatively small group of investors can be difficult and time-consuming, as the respondent from New Venture 4 explains:

Construct	Group	Level of importance			Quote
		Low	Moderate	High	
Anonymous communication	Total (23)	8	9	6	Everyone who reads the business plan can see that this is our capital requirement until the end of the year. It is written everywhere . . . Everyone can read it. But nobody does (New Venture 6)
	New ventures (6)	2	3	1	
	Investors (12)	5	4	3	
	Third parties (5)	1	2	2	I have a look at the business model and the valuation and need to be convinced that they did their homework. But I think the business plan is just bullshit. They prepare their financials in a way that they can get a successful funding. It is somehow legitimate but to project turnover in the future, at this early stage, just makes no sense (Investor 9)
					He has some distance and his decision is based on records. He can only watch – the Internet provides more possibilities – it is not just a written document but audio, video, press reports, references, that is pretty good. But in general he does not know the team personally (Third Party 3)

Table II.
Anonymous communication

10 per cent of our investors are active investors, they want to be involved and maintain a personal and direct contact, but this is extremely time-consuming. We have to steer them into channels so that we do not have to spend the whole day on the phone.

The investors in our sample confirm that they rarely use direct personal communication channels, like face-to-face meetings, telephone calls or even e-mails. While they appreciate the opportunity of getting in contact with the entrepreneur and having the perception of being involved in the business, the investment stakes of investors in equity-based crowdfunding are, in many cases, not high enough to justify considerable investments in time and effort. Investor 6 noted, "I would like to meet the people face-to-face. But regarding the size of the investment it is just not profitable".

Overall, our data support the view that direct communication with the crowd is not feasible in equity-based crowdfunding and that alternative means of communication are used instead to reduce information asymmetries. The Internet serves as a platform to enable point-to-point communication and broadcast capabilities within a single network (DiMaggio *et al.*, 2001; Russ, 2007). Investors in equity-based crowdfunding take advantage of this setup and appear to compensate for the lack of personal communication with the entrepreneur through pseudo-personal communication. Tools like investor relations and social media channels[5] are not only interactive but also, in most cases, fully transparent for all investors. As Investor 11 emphasized:

I worked through the questions and answers completely. And it was one of the major decision criteria, because for me it is very important how the venture answers to the questions. The most important issue is that the ventures provide fast and credible answers.

Investor relations channels allow investors to receive an impression about the people involved, without the necessity to engage directly, as Investor 12 noted, "There are always the same people actively asking questions. Typically I just read along as I do not have the time to ask questions directly". Our data suggest that pseudo-personal communication tools provide investors with a personal impression and simulate direct contact with the entrepreneur. Therefore, the new venture's presentation video published on the crowdfunding platform plays a particularly important role in the communication with the crowd (Table III). It can address common questions asked by potential investors and hence can substitute for a private conversation between investor and investee. The respondent from New Venture 6 believes that "90 per cent of investors decided whether or not to invest after watching our video". Investors in equity-based crowdfunding feel that a presentation of the entrepreneurial team offers valuable information, even more than a detailed written business plan. As Investor 1 mentioned, "I like to see how the people present themselves. This gives me more information than what they write". However, the presentation of the entrepreneur must be convincing, but the video production should be of high quality as well. As New Venture 3 noted, "If an entrepreneur produces a shaky video somewhere in a dark cellar, I would not invest one euro in this venture". Respondents from New Ventures 3 and 4 both stressed the importance of high-quality videos in equity-based crowdfunding and underlined that they put great effort and costs into the production. However, new ventures face a trade-off decision while preparing their crowdfunding campaigns. Expensive campaigns make equity-based crowdfunding unattractive for ventures that seek only relatively small funding volumes. Rather than investing in a crowdfunding campaign, entrepreneurs could use the funds internally to support business growth and follow

Construct	Group	Level of importance			Quote
		Low	Moderate	High	
Pseudo-personal communication	Total (23)	1	3	19	Well, I guess it is decisive how authentic you are perceived in the video and I do not think that we as a team are better than others. I think we succeeded in bringing across our authenticity, that it does not look like an act and that you are able to get a good mix between the idea of the crowd and a professional presentation of the team and the financials . . . because, to be honest, in the end 80 per cent of investors decide based on the video and they do not read the business plan. Hence, it absolutely makes sense to invest a lot of energy in producing the video (New Venture 4)
	New ventures (6)	0	0	6	
	Investors (12)	1	2	9	
	Third parties (5)	0	1	4	I watch the video. And you can use the investor relations channel on the platform to ask questions. I like to look through the questions and answers because it is very important how the entrepreneurs react to get an impression of their competence (Investor 8)
					Well, I think what we have here are investors, investing through the Internet in ventures they do not know personally. It is important how trustworthy the company presents itself on the platform . . . This is, on the one hand the business idea but on the other hand, the people behind the venture, thus their appearance and how they communicate (Third Party 4)

Table III.
Pseudo-personal communication

bootstrapping financing strategies, foregoing external financing sources (Bhide, 1991). Regardless of the funding volume, spending large amounts for their campaigns might be understood as a waste of money, particularly if the fundraising turns out to be unsuccessful.

The importance of pseudo-personal communication is directly related to the finding of our study that most investors in equity-based crowdfunding appear to base their investment decision strongly on an evaluation of the management team. Although hard facts such as work experience or education are considered important, investors need to be convinced of the trustworthiness and reliability of the entrepreneurial team. Personality factors such as sympathy and authenticity and the level of perceived information sharing seem to be key criteria for investors in equity-based crowdfunding (Table IV). This finding is consistent with research in related areas such as P2P lending

Construct	Group	Soft facts		Trust	Quote
		Personality (esp. sympathy, authenticity)	Openness (truthfulness, transparency)		
Important soft facts in pseudo-personal communication	Total (23)	19	11	14	
	New ventures (6)	5	3	4	Well, I think you have to be honest. It does not make sense to tell stories you cannot accomplish. You have to be open and honest, otherwise you upset your investors instead of gaining their support (New Venture 5)
	Investors (12)	11	7	5	I definitely watch the pitch video several times. And I am particularly interested in soft facts, how do I feel about the people (Investor 10)
	Third parties (5)	3	1	5	And this can certainly help, to bridge the media gap, that is, the Internet, if you do not know the people in person, it is important to see them in a video. This makes it much easier to build trust and confidence (Third Party 4)

Table IV.
Soft facts

and the importance of soft facts in uncertain environments (Berkovich, 2011; Duarte *et al.*, 2012; Ravina, 2012). Our data indicate that investors eventually need to have trust in the abilities of the company’s management to be prepared to invest in the venture. As Investor 5 noted, “It has a lot to do with gut feeling. Thus, does it appeal to me?” This result is similar to the decision criteria of other early stage investors, particularly BAs (Hall and Hofer, 1993; Mason and Stark, 2004; Olsen, 2010; van Osnabrugge, 2000).

Our findings extend prior research on the importance of impression management by new ventures (Clark, 2008; Mason and Harrison, 2003; Nagy *et al.*, 2012; Parhankangas and Ehrlich, 2013). Nagy *et al.* (2012) define impression management as a:

[...] behavior enacted to create, protect, maintain, or alter an image of oneself held by a target audience so as to highlight one’s abilities and to manage the perceptions of others (Bolino *et al.*, 2008; Jones and Pittman, 1982).

In this context, Clark (2008) and Mason and Harrison (2003) examine the influence of an entrepreneur’s presentation on BAs’ investment decisions. They find that the better the entrepreneur’s oral presentation, the more willing BAs are to invest in business proposals (Clark, 2008; Mason and Harrison, 2003), even though investors were unaware

of this influence (or reluctant to acknowledge it) and stated the reasons for their investment were based on substance-oriented non-presentational criteria (i.e. business model, product, market and financial issues) (Clark, 2008). Our data show a similar pattern in equity-based crowdfunding. Although most investors stated that substance-oriented criteria are very important, the impression of the entrepreneur delivered through pseudo-personal communicative actions seem to be crucial for their investment decisions. This conclusion was affirmed by the statements of our respondents from new ventures. Based on the quality of the questions asked by investors, most of them are convinced that not more than 10-20 per cent of investors actually read the business plan (critically) and base their investment decision on detailed company information.

In summary, our data demonstrate that even though hard facts are considered important by investors in equity-based crowdfunding, the overall impression given by the entrepreneur seems to be the determining factor to signal the venture's credibility, legitimacy and trustworthiness. In equity-based crowdfunding, pseudo-personal communication, for example, through presentation videos and social media channels, appears to be the key method to transmit relevant information. We therefore propose the following.

- P1.* Pseudo-personal communication by a new venture increases its credibility and legitimacy in equity-based crowdfunding and thus reduces the perceived information asymmetries of investors toward the venture.

4.2 The importance of third-party communication

4.2.1 The role of peer principal endorsements. Peer effects apply to any social process in which the behavior of a group influences the individual (Hirshleifer and Hong Teoh, 2003; Olsen, 2010; Ward and Ramachandran, 2010). Prior research shows that peer effects are more likely to occur if specific market conditions – such as uncertain environments, significant information asymmetries, the observability of others' behavior and fixed price settings – are met (Banerjee, 1992; Bikhchandani *et al.*, 1992; Cipriani and Guarino, 2005; Devenow and Welch, 1996; Dholakia *et al.*, 2002; Fernández *et al.*, 2011). In crowdfunding, often all of these criteria apply, and peer effects appear to play a major role (Table V). According to our data, market participants are convinced that the investment decisions are strongly influenced by the behavior of others. However, they provide different explanations for their views. One group of investors believes in the intelligence of the crowd. As Investor 4 noted:

And there is the intelligence of the crowd as an important part of equity-based crowdfunding [...] and if the crowd states that it is not convinced, I reevaluate my opinion or even decide against an investment due to my gut feeling [...] if the crowd is not convinced, perhaps I shouldn't be as well.

This behavior fits with the idea of the *wisdom of the crowd*, which argues that a large number of people with different sources of information, opinions and expertise can reach better decisions than an individual (Budescu and Chen, 2014; Larrick *et al.*, 2012; Surowiecki, 2004). However, it is questionable if the prerequisites for exploiting crowd wisdom are met in equity-based crowdfunding. Although the crowd is heterogeneous, it is unclear whether the composition of the crowd assures well-informed investment decisions, especially as the investments in crowdfunding are typically small and the

Construct	Group	No. of evidence	Quote
Direct influence on perceived information asymmetries (P2a)	Total (23)	19	
	New ventures (6)	5	Someone will have studied the business plan, then I don't have to do that. That is why I can invest – the others cannot all be stupid (New Venture 1)
	Investors (12)	11	Well, I directly check who is already invested and which amounts were contributed. If, for example, an investment proceeds fairly sluggishly and only small amounts are contributed, I'm critical . . . It is some sort of herd instinct (Investor 2)
	Third parties (5)	3	I'm convinced that a herding effect exists . . . they think that why should I have the ability to better assess the success chances of a venture than the crowd as a whole? The collective of the crowd has much more experience than I do (Third Party 5)
Influence on evaluation of personal information (P2b)	Total (23)	15	
	New ventures (6)	3	At one point in our funding it stopped for three days at EUR 42,000. I asked my family to invest EUR 1,000, just to see if this helps. And then, the funding continued . . . Well, my gut feeling tells me that it is important, that that investors monitor what happens. . . They have to see that others have trust in the venture. Well, I think it is very, very important (New Venture 3)
	Investors (12)	10	Well, I like to inform myself . . . But if I see that there are already large investments made, then I am more interested (Investor 5)
	Third parties (5)	2	Absolutely. The business plans are read by the investors. And critically, very critical . . . But, then, it is very important to have a good funding dynamics, especially in the beginning. We saw that if the funding has a very good start, other investors are convinced that the investment must be good and the funding will be successful (Third Party 2)

Table V.
Peer principal endorsements

incentives to gather information are low (Mollick and Nanda, 2014). Following others in their investment decisions is time efficient and reduces the information costs for the individual (Duan *et al.*, 2009; Hirshleifer and Hong Teoh, 2003). However, if no investor has an incentive to gather information, a situation of crowd wisdom is unlikely to emerge. The statement of Investor 4 is typical in this regard: “If you have the time, you can gather the information yourself. But, as I said, I would like to but I do not have the time”.

Prior research shows that when investors think that others have more or better information, they tend to ignore or at least reevaluate their own private information, which can lead to information cascades (Banerjee, 1992; Bikhchandani *et al.*, 1992; Fernández *et al.*, 2011). As long as potential investors do not passively mimic the choices of other investors with the goal of acting in conformity or as an emotional response (Hirshleifer and Hong Teoh, 2003; Zhang and Liu, 2012), this type of investor behavior can be rational (Banerjee, 1992; Bikhchandani and Sharma, 2001). However, we found in our interviews that some investors, respondents from new ventures and market experts, believe that the market is driven by irrational herding behavior (Shiller, 2000; Simonsohn and Ariely, 2008; Steiglitz and Shapiro, 1998). It is suggested that crowdfunding is currently well publicized, which can lead to the initiation of social contagion processes and implies that investors follow others without considering facts or their own experience (Bikhchandani *et al.*, 1992; Russ, 2007; Shiller, 2000). The behavior of the crowd is, to some degree, exploited by the business model of equity-based crowdfunding platforms through short investment periods, funding limits and high transparency of the funding process. These elements generate a feeling of urgency for investors to act, as Third Party 1 explained:

It is important to create a feeling of urgency. To tell the crowd that it can lose the opportunity to invest because 500 investors are keen to do so. It is like a closing out sale – only three more are available.

In addition, investors react to these mechanisms, even though they seem to be aware of their existence. As Investor 7 described:

Herding behavior definitely exists in equity-based crowdfunding but I think there are two possible explanations: the rational one where people think it must be good when so many others invest and a more irrational explanation where people are afraid to lose the opportunity to invest as the commodity is scarce. I think, even though you are aware of the herding effect you cannot ignore it.

However, if individuals have a choice to delay their investment decision, there can be long periods without investments (Hirshleifer and Hong Teoh, 2003). As Investor 11 emphasized “I think I would never be under the first ones to invest. I would always wait and see what happens”. Hence, first movers are required to stimulate investments by subsequent investors (Bikhchandani and Sharma, 2001; Hirshleifer and Hong Teoh, 2003; Russ, 2007). According to our interviews, all groups of market participants are convinced that, in equity-based crowdfunding, the funding dynamic at the funding start is of high importance. Market evidence supports this assessment. New ventures such as Protonet, Refined Investment, Smarchive, Lingoking and Erdbär were able to complete their fundings (up to the record sum of €1.5 m involving 1,047 investors) in less than 12 hours, which indicates that the reaction time of other investors appears to play an important role in the individual investment decision.

New ventures try to build and preserve a positive funding momentum by activating their own social networks to invest in their crowdfunding campaigns as the respondent from New Venture 6 noted to us:

And to give away secrets, I think that 100,000 are from our family and friends. We have an enormous network and we mobilized it to invest in our crowdfunding campaign’.

This behavior also seems to reflect market expectations, as Investor 9 explained:

For me it is important to have a good funding dynamic right from the start. Because if someone wants to convince the crowd to invest he must at least be able to motivate his friends and family. These people are the most likely to invest and if they don't, I am suspicious. If nothing happens at the funding start I do not invest.

These results are in line with prior findings about P2P lending and reward-based crowdfunding. It has been shown that endorsements by peer investors and family and friends and a dynamic funding start are important factors for ultimate funding success (Colombo *et al.*, 2014; Hildebrand *et al.*, 2013; Lin *et al.*, 2009; Liu *et al.*, 2013; Ward and Ramachandran, 2010).

In summary, we theorize from our data that peer effects are important drivers in equity-based crowdfunding. We find evidence that the investment choices of others seem to reduce the perceived information asymmetries of investors. Furthermore, investors ignore or reevaluate their own private information due to the investment decisions of others. Consequently, we further theorize that the importance of pseudo-personal communication by the venture is reduced by peer behavior. The Internet intensifies this influence, allowing investors to not just observe others but to directly communicate with them (Ward and Ramachandran, 2010). We therefore propose the following:

- P2a.* Endorsements by peer principals (i.e. peer investors) reduce the perceived information asymmetries of investors in equity-based crowdfunding.
- P2b.* Endorsements by peer principals decrease the importance of pseudo-personal communication to reduce the perceived information asymmetries of investors in equity-based crowdfunding.

4.2.2 The role of superior principal endorsements. In markets with high information asymmetries, decision-makers are susceptible to any type of quality disclosure to reduce their risks (Dranove and Jin, 2010; Kim and Viswanathan, 2013). This disclosure can be provided by the venture itself, through peer opinions and behavior, or through quality assurance measures provided by third parties (Dranove and Jin, 2010). Based on our data, we theorize that superior principals exist that influence the decision-making of investors in equity-based crowdfunding (Table VI). Superior principals are single investors or other third parties with specific expert knowledge about the company and/or its products. Endorsements of such superior principals can take various forms, such as the involvement of or investments by professional and experienced investors, customer experiences, company alliances and professional certifications (Chemmanur and Fulghieri, 1994; Dranove and Jin, 2010; Hsu, 2004; Iyengar *et al.*, 2011; Kim and Viswanathan, 2013; Megginson and Weiss, 1991; Nahata, 2008; Nair *et al.*, 2010; Stuart *et al.*, 1999).

In our interviews, both investors and new ventures emphasized the positive influence of investments already made by formal and informal capital providers such as VCs and BAs. As Investor 3 noted, “if business angels are already invested, there must be more behind it. They have a deeper look into the company, as they are directly investing thousands of Euros”. This effect can be explained by trust in the abilities of professional investors to choose only reliable and trustworthy ventures with high growth potential (Stuart *et al.*, 1999). In addition, VCs have the potential to add value through their own

Construct	Group	No. of evidence	Quote
Direct influence on perceived information asymmetries (P3a)	Total (23)	14	
	New ventures (6)	3	The longer the investment is at the same level, the less likely it is to get fully funded. Unless they publish something really important, like acquiring a big customer or similar references. In this case they might kick-start again (New Venture 1)
	Investors (12)	8	Especially in B2C, where people use the product on a daily basis, it is important to see how customers react (Investor 6)
	Third parties (5)	3	Satisfied customers are a fantastic element to take away the fears of investors (Third Party 1)
Influence on evaluation of personal information (P3b)	Total (23)	12	
	New ventures (6)	3	We took great care to produce the video and to prepare the documents . . . We already have customers, we already have another investor, a local venture capital fund, and these are important factors. This helps investors to make a decision (New Venture 3)
	Investors (12)	7	If I see that an external investor already participated like a business angel or a public development bank, than I am more interested as the company already has a proof-of-concept (Investor 11)
	Third parties (5)	2	External references. Someone must help them to make the decision and to say, yes, this is good (Third Party 3)

Table VI.
Superior principal endorsements

experiences and networks, which further increases the chances of success for new ventures (Baum and Silverman, 2004; Hsu, 2004). Prior research confirms the positive effect of VC participation in achieving follow-up financing (Alexy *et al.*, 2011; Megginson and Weiss, 1991; Nahata, 2008; Stuart *et al.*, 1999). Although VC investments in new ventures using crowdfunding are rare, our data reveal that BA investments can have a similar influence on investors in equity-based crowdfunding. This result is supported by actual market data showing that new ventures that received prior funding from either VCs or BAs tend to promote this information very actively in their equity-based crowdfunding campaign. An exemplary analysis of actual market data from Companisto, the second largest equity-based crowdfunding platform for new ventures in Germany, demonstrates that new ventures are utilizing the statements of prior investors and customers as external credentials in more than 65 per cent of their presentation videos[6].

Crowd investors have difficulties in distinguishing between different types of investors while equity-based crowdfunding is in progress. They can only trace usernames, times and the sizes of predecessors' investments. We theorize from our interviews that the size of prior investments is an indicator of the perceived degree of

professionalism or information advantages of other investors: “And if I see large amounts in the thousands, then I am more interested” (Investor 2). Looking at our data, we found a similar effect related to the usernames of investors with high equity-based crowdfunding activity. Some equity-based crowdfunding platforms encourage this effect by awarding badges for investors if they reach a certain investment frequency or cumulative amount invested. These badges are attached to the username and, therefore, transparent for others. It seems that the investments of highly active crowd investors can have a positive influence on others, as Investor 4 explained:

I have noticed investor X because he is a very active investor [...]. And then I stumbled over his name on XING [a German professional online network] and Facebook and I thought, OK, I should make contact with him to exchange information [...]. He often has more information, as he is in direct contact with the entrepreneurs, and sometimes he recommends an investment.

These peers can be understood as opinion leaders. They are a minority of individuals with great influence on the opinions of a large number of peers and are important drivers of public opinion (Watts and Dodds, 2007). The role of opinion leaders is well established in diffusion and marketing research (Iyengar *et al.*, 2011; Nair *et al.*, 2010; Watts and Dodds, 2007). According to this research, the influence can be rooted in higher usage volumes, experience, intensive network activities or past successes (Iyengar *et al.*, 2011; Nair *et al.*, 2010).

Such opinion leader effects are not restricted to investments by other market participants. Our interview data suggest that investors in equity-based crowdfunding are also affected by customer opinions, business partners and other external credentials. Customer comments about product quality, company communication or the reliability of product delivery provide potential investors with information about a company’s reliability and sustainability (Dranove and Jin, 2010). As Investor 4 explained:

I would like to see that the ventures already have customers and that you can see feedbacks and how the company communicates on Facebook. You should see that they have started their business and that the product is well received by the market.

Other factors, such as having reputable business partners and external credentials (e.g. awards), were also mentioned as positive quality indicators, as Investor 3 noted:

They received a subsidy from the German government (EXIST) and you know that the company is not an empty shell. You have more trust if the ventures already received rewards through business plan competitions or you know them through pitches or press reports.

One very specific affiliation and quality indicator is the promoting equity-based crowdfunding platform. Our interview data suggest that crowd investors have a high degree of trust in the screening and evaluating abilities of specific platforms. This is rather surprising because equity-based crowdfunding platforms bear little risk regarding the crowdfunding transaction. Furthermore, their remuneration is directly linked to the funding success leading to a potential conflict of interest. The investors in our dataset appear not to be very concerned about this situation and argue that the platforms’ reputation is also at risk. As Investor 10 stated, “And I trust in the platform, that they can make a more objective decision than me”.

This positive influence of reputation at risk leading to careful selection is demonstrated to have been of high influence in different contexts in past research (Chemmanur and Fulghieri, 1994; Dranove and Jin, 2010; McLaughlin *et al.*, 2000; Stuart

et al., 1999). Although trust in the platform does not have a direct influence on individual deal selection, it influences the choice of the intermediary and the set of ventures from which an investor makes his or her choices.

Third-party endorsements can provide a venture with legitimacy and hence reduce its liability of newness (Rao *et al.*, 2008; Stinchcombe, 1965; Zimmerman and Zeitz, 2002). Our interview partner from Third-Party 3 nicely summarized the positive effects of superior principal endorsements: “External references. Someone must help them to make the decision and to say, yes, this is good”. Our findings suggest that endorsements through the investments of reputable investors such as VCs, BAs and opinion leaders, positive feedback from external stakeholders of the venture such as customers, suppliers or business partners and external certifications reduce the perceived information asymmetries of investors in equity-based crowdfunding. We refer to these endorsements as superior principal endorsements. Moreover, investors seem to ignore or reevaluate their own private information if these endorsements are available. We therefore propose the following:

P3a. Endorsements by superior principals reduce the perceived information asymmetries of investors in equity-based crowdfunding.

P3b. Endorsements by superior principals decrease the importance of pseudo-personal communication to reduce the perceived information asymmetries of investors in equity-based crowdfunding.

4.3 Opinion leaders and investor communication

New ventures think that few investors are interested in being involved in the venture and in seeking personal communication. As our interview partner from New Venture 1 noted:

I think there are different groups of investors. I speak about the majority, but there are some investors who are interested in being involved and in communicating directly. But 90 per cent of investors make their decision based on the video.

Thus, next to the rather “passive” crowd, there exists a specific group of very active peer investors that resemble opinion leaders. Our interview data suggest that opinion leaders have different communication requirements than the majority of the crowd in equity-based crowdfunding. As Investor 3 stated:

I am interested in getting to know the entrepreneur. I have a direct contact with nearly every new venture I invested in. I often have a direct contact by phone; sometimes I meet them in person.

Even though pseudo-personal communication may still play a role in the investment decisions of such investors, other communication methods seem to be more effective for this particular group. As our respondent from New Venture 2 noted, “I think that there are different types of investors who require different communication strategies. But the questions asked came from a small group of investors”.

Prior communication research shows that social networks are characterized by asymmetric peer effects (Nair *et al.*, 2010). Opinion leaders are influenced to a lesser extent than other individuals by peer behavior and, instead, trigger social contagion processes themselves (Iyer *et al.*, 2009; Nair *et al.*, 2010; Watts and Dodds, 2007). The

same effects seem to be present in equity-based crowdfunding. As Investor 12 emphasized: “There are people who are opinion leaders. And then there are many investors who just follow the opinion leaders. They think this guy cannot be wrong”. Our data suggest that opinion leaders in equity-based crowdfunding try to make their investments based on informed decisions:

I prefer to take some time to have a look at the venture, at the business plans and I ask questions. The pressure to invest is not so pronounced anymore so I can take my time to decide (Investor 3).

Thus, we propose that peer principal endorsements and pseudo-personal communication by the venture are of lesser importance for opinion leaders.

P4. The importance of pseudo-personal communication of new ventures and peer principal endorsements as a means to reduce perceived information asymmetries is less pronounced for opinion leaders.

5. Implications for theory and practice

5.1 Summary of main results and conceptual model

The aim of our study is to explore how investor communication can help reduce information asymmetries and facilitate the investment decisions of investors in equity-based crowdfunding. Crowdfunding has undergone a dynamic development in recent years and is established as an alternative financing instrument for some new ventures. Despite its practical relevance, to date, little research has been conducted to fully comprehend the drivers of the investment decisions of crowd investors, particularly in equity-based crowdfunding. We tap into this research gap and utilize a qualitative research design based on 23 in-depth interviews with investors, entrepreneurs, respondents from equity-based crowdfunding platforms and market experts.

A key result of our study is that the overall impression of the management team – especially their perceived sympathy, openness and trustworthiness – plays an important role in reducing the perceived information asymmetries of investors in equity-based crowdfunding. To communicate these soft facts, alternative ways of communication that can be characterized as pseudo-personal seem to be used. In addition, we find that the communications of third parties influence the decision-making process of individual investors in equity-based crowdfunding. In our interview data, two groups of third parties emerge: peer principals (i.e. peer investors) and superior principals (e.g. other professional or experienced investors and external stakeholders). The communications and behavior of both groups appear to have a direct impact in reducing the perceived information asymmetries of crowd investors. In addition, the importance of pseudo-personal communication by the venture is reduced if third-party endorsements are available. Investors seem to reevaluate or even ignore their own assessments following this information. These findings are summarized in the conceptual model shown in [Figure 1](#).

Furthermore, as a boundary condition for the proposed relations, we find that there exists a minority group of investors in equity-based crowdfunding that resemble opinion leaders for whom other communication requirements apply.

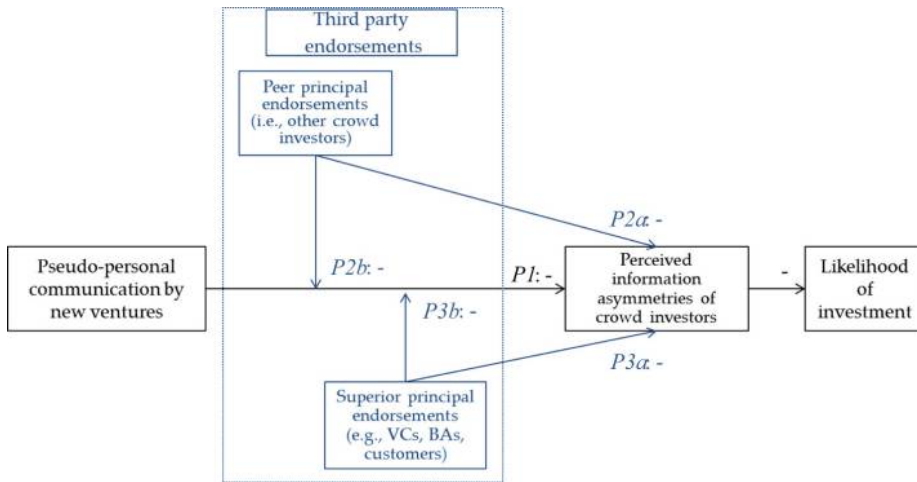


Figure 1. Conceptual model for investor communication in equity-based crowdfunding

5.2 Limitations

Our study has some limitations. First, we focus on the German equity-based crowdfunding market, and hence, our study is based on a specific institutional context. As regulations and market structures are heterogeneous across countries, the business models of equity-based crowdfunding platforms (i.e. funding limits, financial instruments used) vary considerably between countries. In addition, information requirements of crowd investors are likely to differ between different crowdfunding models (Ordanini *et al.*, 2011). As Investor 10 noted, “In reward-based crowdfunding it is different. Either I invest in products which are really cool or I invest in projects where I have a personal relationship with the initiators”. In philanthropic projects, the crowds’ motives to participate are likely to differ even more and money is given for intrinsic motivations like the desire to help others, increase peoples’ self-esteem or to have positive social network effects (Burtch *et al.*, 2014; Gerber *et al.*, 2012; Saxton and Wang, 2014; Smith *et al.*, 2013). Overall, because of the specific research context, which implies certain motivations of crowd investors to participate, market characteristics and cultural differences, generalizations to other crowdfunding markets should not be undertaken without further research. Second, our results are limited to a qualitative and explorative research design. Our request to take part in the survey was placed as appeals in social media channels, by e-mails or personally. Around 40 per cent of our interview requests placed by e-mail ended with a positive response. Comparing this response rate to usual response rates in survey-based studies, we are satisfied with our response rate. Even though we did not detect a connection between the refusal to participate and the characteristics of the potential interview partner or the project, it could still be the case that the people not willing to participate would have responded differently. A very humble indication for us it that one interviewee was contacted multiple times and only then decided to participate. His responses were consistent with those from the other interviewees which could be interpreted as a positive sign following the late-respondent-logic applied in survey-based studies. Although we took great care in selecting our interview partners and using well-established methods of theoretical sampling and triangulation, our results should only be considered as preliminary

insights. Our findings cannot be generalized to the entire equity-based crowdfunding market, even though we find some supporting evidence for our main findings in actual market cases. Furthermore, with our study, we are not able to specify in a quantitative way which factor or combination of factors has the largest impact in reducing the perceived information asymmetries of investors in equity-based crowdfunding.

5.3 Theoretical contributions

Our study contributes to the existing research in entrepreneurial finance in four aspects. First, we contribute to the scarce research on investor communication for new ventures (Bassen *et al.*, 2010; Kollmann and Kuckertz, 2006). Equity-based crowdfunding adds a new and, thus far, largely neglected group of risk capital providers for new ventures: the crowd. The crowd is a large group of heterogeneous, mostly anonymous, investors characterized by their preference to utilize new technologies to gather information, to communicate and to invest. However, the crowd in equity-based crowdfunding acts in a similar context as traditional risk capital providers. It invests in risky and often innovative new ventures, which are characterized by a lack of information and a liability of newness (Rao *et al.*, 2008; Stinchcombe, 1965; Zimmerman and Zeitz, 2002). To reduce information asymmetries, traditional equity providers such as VCs or BAs establish interpersonal relationships with the entrepreneurs (Landström, 1992; Sapienza and Korsgaard, 1996). Crowdfunding, however, involves a large number of (small) investors, which makes personal relationships with all investors virtually impossible. We contribute to the existing research by proposing an alternative communication strategy for equity-based crowdfunding that can be characterized as pseudo-personal. Our study thus extends the growing literature on the relevance of impression management by entrepreneurs to convince investors of their legitimacy and credibility (Nagy *et al.*, 2012; Parhankangas and Ehrlich, 2013). We find in our interview data that investors in equity-based crowdfunding can be persuaded to invest – similar to business angels – by a positive impression of the entrepreneur. In particular, sympathy and trust seem to play an important role in the investment decisions of investors. These soft facts can typically only be communicated through direct personal contacts. In equity-based crowdfunding, investors appear to replace personal contacts with pseudo-personal communication.

Second, we contribute to the literature on herding behavior in financial markets (Banerjee, 1992; Bikhchandani and Sharma, 2001; Devenow and Welch, 1996; Shiller, 2000; Steiglitz and Shapiro, 1998), where equity-based crowdfunding has not played a major role so far. According to our interview data, the investments of peer principals play an important role for the funding decision of subsequent investors in equity-based crowdfunding and can trigger herding effects. However, our data do not permit us to differentiate whether this herding behavior is based on rational judgments following the idea of the wisdom of crowds (Larrick *et al.*, 2012; Surowiecki, 2004) or is the result of irrational exuberance (Shiller, 2000; Simonsohn and Ariely, 2008; Steiglitz and Shapiro, 1998). Although it is questionable whether the prerequisites for exploiting crowd wisdom are met in crowdfunding, prior research found some evidence of crowd wisdom in reward- and lending-based crowdfunding (Herzenstein *et al.*, 2011; Mollick and Nanda, 2014; Zhang and Liu, 2012). Irrespective of the motivations of herding in equity-based crowdfunding, we theorized from our data that the perceived information asymmetries of crowd investors and the importance of pseudo-personal communication by the venture are reduced in the presence of peer endorsements.

Third, we contribute to the literature on certification and reputation in financial markets (Block *et al.*, 2014; Chemmanur and Fulghieri, 1994; Dranove and Jin, 2010; Hsu, 2004; Megginson and Weiss, 1991; Stuart *et al.*, 1999). Prior research has shown that the participation of reputable investors or intermediaries such as venture capitalists or investment banks have positive effects on follow-up financings of ventures (Alexy *et al.*, 2011; Chemmanur and Fulghieri, 1994; Hsu, 2004; Megginson and Weiss, 1991; Nahata, 2008; Stuart *et al.*, 1999). According to our data, similar mechanisms apply in equity-based crowdfunding. Crowd investors appear to be positively influenced by experienced investors and platform reputation. In addition, the perceived information asymmetries of crowd investors are reduced by opinion leader participation and other external credentials like press coverage or granted awards (Dranove and Jin, 2010; Iyengar *et al.*, 2011; Nair *et al.*, 2010; Watts and Dodds, 2007).

Finally, we contribute to research about crowdfunding and the decision criteria of the crowd. Prior research has identified various drivers of fundraising success in different crowdfunding models such as presenting the pitch and disclosure of information (Ahlers *et al.*, 2013; Burtch *et al.*, 2014; Duarte *et al.*, 2012; Michels, 2012), the importance of the fundraisers' social network (Lin *et al.*, 2014; Mollick 2014) and peer behavior in crowdfunding (Herzenstein *et al.*, 2011; Kim and Viswanathan, 2013; Zhang and Liu, 2012). Our study is one of the first empirical studies on investor decision criteria in equity-based crowdfunding. We find that the entrepreneur's personality and overall impression are particularly important and are actively communicated by the venture with pseudo-personal communication tools. Furthermore, we consider the impact of third-party communication or endorsements with regard to the perceived information asymmetries of investors in equity-based crowdfunding.

5.4 Practical implications

Our findings have practical implications for the different market participants in equity-based crowdfunding. Investor communication appears to be an important tool for convincing crowd investors of a venture's legitimacy and credibility. However, new ventures need to be aware of the specific characteristics of the communication requirements of the different types of investors in equity-based crowdfunding. Furthermore, they need to consider the impacts through third-party communication. New ventures and equity-based crowdfunding platforms can utilize the results to optimize the process to support a successful crowdfunding campaign. Entrepreneurs should recognize the importance of how their personality is perceived by investors in equity-based crowdfunding. Hence, in addition to explaining their business model, they need to focus on their media behavior and on presenting themselves as sympathetic and trustworthy. In addition, they should actively communicate the engagement of prior external equity investors and reference statements from key customers and suppliers. Furthermore, new ventures should be aware of possible differences in the crowds' communication expectations based on different product characteristics or platform-specific criteria like minimum investment amounts. Investors in equity-based crowdfunding should ensure that their investment decision is driven by the success potential of the new venture. Their own personal impression of the entrepreneurial team might hinder them from investing in promising projects or attract them to unpromising projects. Furthermore, trusting peer principal or superior principal endorsements could lead to a lack of analysis of fundamental company data.

5.5 Future research agenda

Based on our findings about investor communication in equity-based crowdfunding, we now describe four promising research areas for further research:

RQ1. What is the exact role of pseudo-personal communication and social media in reducing information asymmetries of investors in equity-based crowdfunding?

A structured analysis of the different tools used to communicate in equity-based crowdfunding could help in understanding their impact on funding success. Through an in-depth analysis of particular investor relations channels provided by the platforms, it becomes possible to investigate the importance of reaction times or particular narratives or wordings utilized to achieve funding success. The role of social media channels in achieving funding success is another promising area of interest. The development of Facebook “likes” before, during and after a funding campaign, a verbal analysis of commentaries and Twitter messages could give further insights into how the use of social media influences information asymmetries and ultimately funding success. Another line of research could be a detailed analysis of the product videos provided by the ventures on the platforms. How is the making of and the content of such videos related to funding success, and what content is particularly important for crowd investors?

RQ2. What is the role of investor communication in other crowdfunding models?

Similar to previous research on reward- and donation-based crowdfunding (Mollick 2014; Saxton and Wang 2014), we found that pseudo-personal communication tools such as the product video and social media matter also for attracting investors in equity-based crowdfunding. However, we would expect the exact communication styles and contents to differ between the different crowdfunding models. We expect, for example, that in reward-based crowdfunding, the presentation of the product features is very important and that, in donation-based crowdfunding, the presentation of the social value of the project matters in particular. Future research could be conducted to find out more about such differences. Furthermore, it would be interesting to compare the role of third-party communication across the different crowdfunding models:

RQ3. To what extent do the business models of equity-based crowdfunding platforms influence investor communication by the ventures?

The role of equity-based crowdfunding platforms in reducing information asymmetries is still evolving and, so far, has not yet received extensive research attention. What information must be provided to platforms, and how do platforms as intermediaries shape the information that is disclosed by the venture to the crowd? In other words, how do platform-specific characteristics such as disclosure requirements, communication tools provided, allowed funding limits and minimum investment amounts shape the investor communication policy of new ventures in equity-based crowdfunding and/or other crowdfunding models?

RQ4. How heterogeneous are investors in equity-based crowdfunding and what are the consequences for investor communication by new ventures?

Prior research shows that the different motivations of crowd investors are reflected in different investment strategies and behavior (Lin *et al.*, 2014). These differences are not only related to different crowdfunding models but also exist on the same platform (Lin *et al.*, 2014). We found in our interviews that opinion leaders have different communication requirements. The same might be true for other groups such as early adopters or user innovators.

Crowdfunding offers the chance for new ventures to reduce the early-stage financing gap and increases the chances that innovative ideas are brought to the market (Harrison, 2013). The democratization of new venture financing increases the awareness of society concerning new ventures and their importance for the economy. However, the liberty to invest in high-risk ventures is of large regulatory concern, especially regarding investor protection. It can be expected that the future of equity-based crowdfunding depends largely on the default rates of funded ventures, the reputation of the platforms and, in particular, on future market regulations. For future regulation efforts, it is relevant to better understand the crowd in equity-based crowdfunding, and hence, future research should aim to depict relevant factors that help to explain crowd investor behavior. Our study is a first step in understanding investor communication requirements.

Notes

1. This article focuses on equity-based crowdfunding for new ventures. In German-speaking countries, the term *crowdinvesting* is often used to distinguish between different crowdfunding models.
2. Donation-based crowdfunding does not provide any type of a tangible return for investors. Reward-based crowdfunding includes a tangible return, such as a funded artist's CD or the possibility to buy a product in advance, sometimes at a discount. Lending-based crowdfunding implies a loan provision, typically between peers (P2P lending), including interest payments (Collins and Pierrakis, 2012).
3. Equity-based crowdfunding models differ between countries in their investment design due to different national regulations (Hornuf and Schwiembacher 2014). To maintain the same preconditions throughout our study, we concentrated on the German market.
4. Seedmatch, the largest German equity-based crowdfunding platform for venture financing, reports that approximately 90 per cent of its investors are male. Available at: <http://blog.seedmatch.de/2013/04/04/seedmatch-in-zahlen-die-quartalsgrafik-q12013/#more-7738> (accessed 26 June 2014). For Innovestment (the third largest equity-based crowdfunding platform), nearly 94 per cent of investors are male (Klöhn and Hornuf, 2012).
5. The importance of social media channels in reducing an audience's uncertainties about quality and distinctiveness and establishing the perceived legitimacy of new ventures has been demonstrated recently (Fischer and Reuber, 2014).
6. The analysis was conducted for equity-based crowdfunding transactions on Companisto between October 31, 2011 and July 31, 2013.

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