

How Should Entrepreneurs Use the Crowd to Succeed?

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Abstract

Crowdfunding, although still a relatively small part of the equity investment ecosystem, is growing at a rapid pace and is having a significant impact on new ventures growth. One of the crucial factors to new venture success is openness to external knowledge sources, the importance of which is driven by the liabilities of smallness. Through a qualitative study of companies that approached equity crowdfunding in Europe, this study aims at shedding empirical light on the role of the crowd beyond the provision of financial resources, as an active player on the firm's development process. Entrepreneurs collaborate with a range of experts in building knowledge and solving problems, broadening therefore their understanding of unserved needs and gaining insights into novel approaches to innovation. As a result, through an active participation investors became product and business co-innovators influencing new ventures survival, although this effect is moderated by founders' expertise.

1. Introduction

Crowdfunding is a young phenomenon and has shown strong growth in the last years. Equity crowdfunding is attractive to entrepreneurs as a more accessible way to raise capital for early stage businesses, which have limited financing options, and also as a tool for investors to contribute to the ideas they believe in, even investing a relative small amounts. One of the crucial factors to new venture success is openness to external knowledge sources, the importance of which is driven by the liabilities of smallness (Stinchcombe, 1965). Given the increasing recognition and importance of leveraging knowledge of external sources for a firm's internal innovation and growth (Henkel & von Hippel, 2005; Prahalad & Ramaswamy, 2003), our first goal in this article is to understand the role of the crowd in contributing to the development of the company through an active participation as co-innovator either of the product or business, and what is the best way for entrepreneurs to approach the crowd successfully.

Through a qualitative research design we explored the contribution of investors in four main areas: (a) product co-development in multiple stages of the innovation process - ideation, development, and launch, (b) business growth strategy, (c) network exploitation to introduce product to market and expand company's network-base, and (d) business ambassadors.

Moreover, looking at internal and external factors to the organization that could influence its openness to the crowd, we found that founders' entrepreneurial and industry experience and the presence of professional investors as company shareholders significantly influence the involvement of investors communities.

Lastly, we investigated how entrepreneurs should use the crowd to succeed. Based on a short-term company performance assessment, first-time and serial entrepreneurs shall adopt a different open approach to the crowd. Specifically, first-time entrepreneurs report a higher performance and short-term survival rate when adopting a lighter open approach to their investors communities. Too much openness may be detrimental for first-time entrepreneurs. A large community of investors constantly sharing their feedback and opinion of the product and business can be a double-edged sword if not managed well. On one hand, company can exploit new ideas and sustain their

competitive edge, but on the other hand, inexperienced entrepreneurs can get distracted by a large amount of information and wrapped up in this feedback loop, losing sight of their vision.

The paper is organized as follows. Section 2 reviews previous findings and contributions on the open innovation and crowdfunding literature. Section 3 describes the data and method of the analysis. Section 4 presents the context and results of the study, followed by a discussion of the implications.

2. Theoretical and empirical background

New ventures success, due to resource-constrained context, is heavily dependent on both internal knowledge and external financial and non-financial resources (Stinchcombe, 1965; Eisenhardt & Schoonhoven, 1996; Presutti et al., 2011). Openness to external network has been recognised by scholars as a way to accelerate internal innovation activities (Chesbrough & Bogers, 2014; West & Bogers, 2014), to obtain capital, advice, and knowledge in different areas of the business (Colombo et al., 2006; Hsu, 2006).

Additionally, the literature stresses the importance of professional investors in providing first time founders with services in areas such as strategic planning, finance, accounting, human resource management (Hellmann and Puri, 2002), network of contacts that ease the access to external resources, and competences often unavailable to non venture-backed companies (e.g. Colombo et al., 2006; Hsu, 2006; Bottazzi et al., 2008; Colombo & Grilli, 2010).

Recently, crowdfunding emerged as an alternative means of financing for early-stage companies. Defined as “an open call, essentially through the Internet, for the provision of financial resources either in form of donation or in exchange for some form of reward and/or voting rights in order to support initiatives for specific purposes” (Schwienbacher and Larralde 2010), it bears the potential for new ventures to overcome the problems of attracting external capital in their early stage and, at the same time, it is also a possible avenue to access to additional resources and capabilities that go beyond the provision of financing.

Scholars recently have started to map the phenomenon of crowdfunding analysing funders' and initiators' motivations for starting and taking part in a crowdfunding project (Gerber, Hui, & Kuo,

2012; Zhang, 2012) and the dynamics of crowdfunding success and failure demonstrating how project quality (Mollick, 2014), spatial proximity (Agrawal, Catalini, & Goldfarb, 2011) and entrepreneurs' internal social capital (Colombo et al., 2014) are crucial in attracting both early capital and early backers, influencing, therefore, the success of crowdfunding campaigns.

However, due to the increasing importance of leveraging knowledge of external sources as a way to accelerate internal innovation activities and growth (Henkel & von Hippel, 2005; Prahalad & Ramaswamy, 2003), our first goal is to understand the role of the crowd in contributing to the development of the company through an active participation as co-innovator either of the product or business. Our second goal is to assess how open approaches to new ventures development affect company short-term survival.

3. Research Design

Due to our limited knowledge about the relationship between founders and investors and how the latter are involved in companies' activity, we pursue our investigation inductively, relying on a qualitative approach (Strauss & Corbin, 1998; Stern, 1980). As common in such research, a primary data source was in depth-interviews with purposely-selected informants and context to best understand the phenomenon of interest.

3.1 Sampling

We focused our attention on equity-based European crowdfunding platforms. We purposely selected individuals and setting that maximize the understanding of the phenomenon, since the goal of the study is not to generalize to a population but to obtain insights into a new phenomenon. Therefore, we initially chose informants able to inform us on our main research question about the participation of investors in the company. Then, we tried to maximize the variation within the sample purposely selecting informants belonging to different industries, development stages, and amount raised, so that the multiple perspectives of individuals can be presented that exemplify the complexity of the phenomenon (Creswell, 2002).

Our target sample is founders of companies that successfully fundraised through European equity crowdfunding platforms. Within that sample, we selected companies that completed their crowdfunding campaign at least six months before beginning of our data collection process. This time lag was necessary for entrepreneurs to receive funds and interact with investors' communities to understand their expertise and start building relationships with them.

The entire process involved an iterative approach of simultaneously collecting and analysing data, and engaging new informants. We extended this process until further data collection and analysis yielded no additional information on the phenomenon into consideration, what Glaser and Strauss (1967) referred to as "theoretical saturation."

3.2 Data collection

We collected data using semi structured, one-to-one interviews and electronic documentation - i.e. newspaper articles, press interviews, and crowdfunding platform data. We relied on interviews as main data source, with documentation and secondary data about company's status, fundraising process, and growth score from CrunchBase and Mattermark serving as important triangulation and supplementary source.

We conducted multiple in-depth interviews with the founders of the firm after the crowdfunding campaign event. To maintain consistency, the lead author conducted all the sixty interviews, of which 16 in-person, 24 by telephone (via Skype), and 20 written interviews with organizations that fundraised through equity crowdfunding in the UK, the Netherlands, Sweden, France, and Germany. Our informants were either the founders of the company or managing directors, who were responsible for the fundraising process and the engagement with investors communities. Moreover, a few follow-up interviews have been conducted with five entrepreneurs to assess changes in the relationship with investors over time.

We selected organizations belonging to different industries and different development phases, as detailed in Table 1 (see Appendix A). Each respondent was encouraged to give detailed answers and provide examples to questions organized in a semi-structured interview protocol (see Appendix A). The interviews ranged from 20 to 80 minutes, with an average length of 30 minutes.

All the interviews were audio-recorded and transcribed within 24 hours. The initial interview protocol was standardised across informants but subsequent interviews became more structured and customized around themes emerging in the data. This on-going focus allowed us to identify patterns across informants, consistencies and inconsistencies across organizations, as well as relations among emergent concepts.

3.3 Data analysis

As we collected the data, we also analysed it following the content analysis technique. To maintain consistency, the lead author performed the overall data analysis process.

Following Gioia, Corley, & Hamilton (2012), we performed both “first-order analysis” to capture informants’ understanding in the term in which they thought about the research problem at hand and “second-order analysis” to move the findings to a theoretical level. The first-order analysis enabled us to understand investors’ involvement in the terms meaningful for the respondents; through a second order analysis we developed a theoretical concepts and relationships that underlie the first order findings (Gioia & Chittipeddi, 1991). For clarity, we report a description of the major steps of the data analysis process.

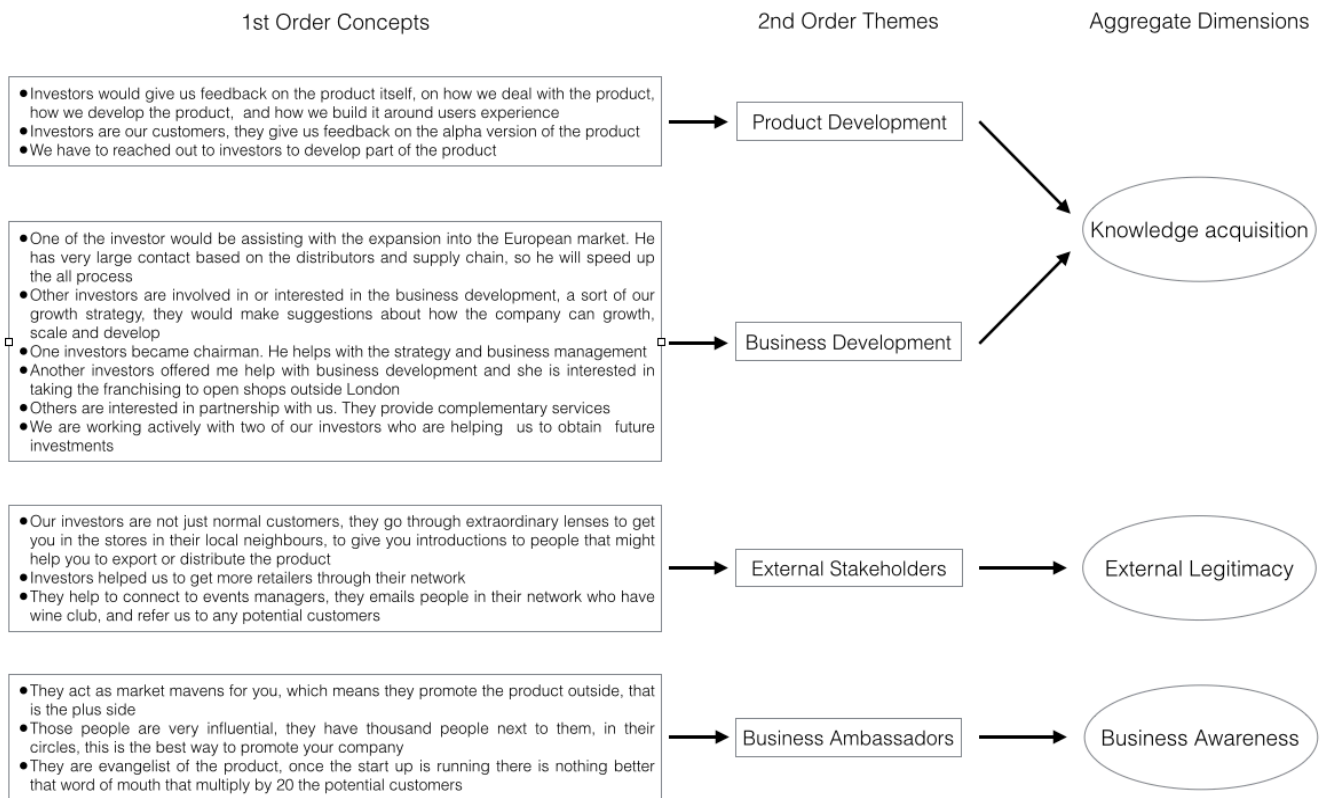
Step 1: We began the analysis of the interviews collected by breaking up the data into relevant concepts and grouping them into categories, following the process of open coding (Strauss & Corbin, 1998). We coded these descriptions by using language used by the informants (Gioia et al., 2012). The archival sources were used to support informants’ statements and to provide additional details where relevant.

Step 2: Next, we engaged in axial coding, searching for relationships between and among those categories, which allowed us to group them into higher-order themes.

Step 3: Finally, from the data and the first-order concepts, travelling back and forth between emerging insights, and existing theory, we performed a selective coding by relating similar themes into overarching dimensions that create the basis of the emergent framework (Gioia & Chittipeddi, 1991).

The final data structure is illustrated in Figure 1, which summarizes the second-order themes upon which we built our model of crowd contribution in the company development.

Figure 1: Data structure



As illustrated in Figure 1, from the empirical observations we have created the second order theme categories by linking constructs considering the final objective of the involvement. For instance, the category “product development” includes interactions and relationships with investors aiming at improving the product and fine-tuning its development. The “business development” theme refers to activities that help founders to bring their business to the next stage, by creating meaningful partnerships, establishing the business in new markets, increasing the value of a current customer base and find new ones, helping in raising additional investments or investing additional funds, offering services and becoming first customers.

Finally, the last two categories “external stakeholder” and “business ambassadors” include activities where investors engage with and exploit their own network to facilitate the introduction of products to market in the interest of the founder. Despite some similarities, the main difference

between the two lies on the extent to which investors rely on their own network and reputation to provide support to entrepreneurs. The “external stakeholder” category combines activities where investors tap directly into their personal network to introduce, connect, and refer founders to influential people in their circle acting as a guarantor of the quality of the company.

The “business ambassadors” category groups light-touch involvement activities where, for instance, investors share companies news and events on social media channels without actually exposing their reputation or approaching directly their own network to the benefit of the company they have invested in.

Finally, integrating primary data with secondary data from sources as CrunchBase and Mattermark, we conducted a cross-case analysis by comparing and contrasting observations about investors’ involvement across the sixty organizations. We looked for differences in patterns considering organizations’ characteristics, the presence of professional investors, and entrepreneurs’ personal experience.

4. Findings

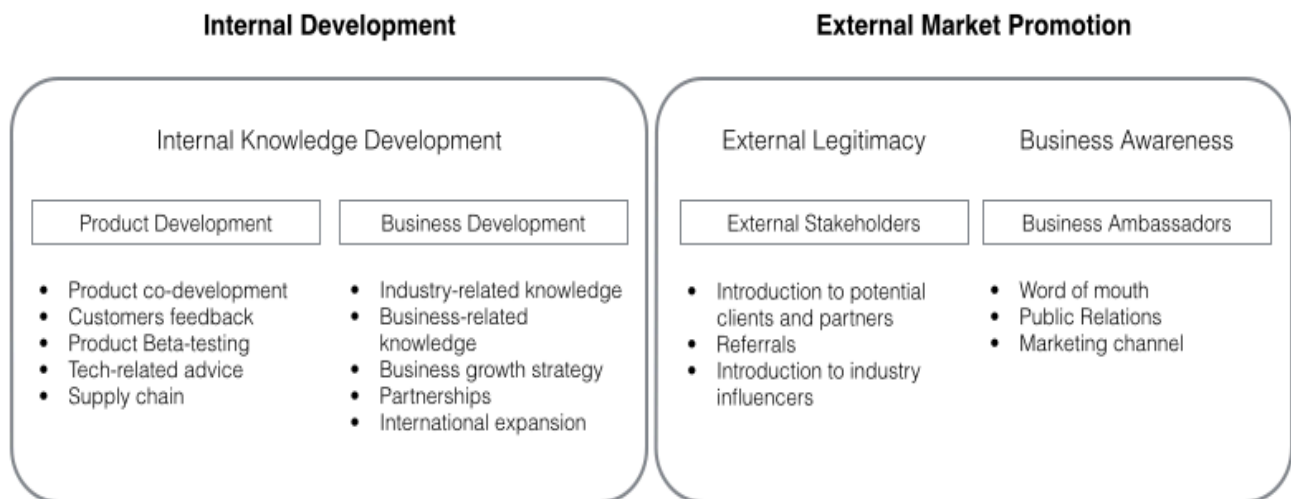
As illustrated in Figure 2, four main themes identify investors communities participation in companies activities: (a) product co-development (b) business growth strategy, (c) crowd’s network exploitation and (d) business ambassadors.

We further grouped those dimensions in “internal development” and “external market promotion”, as illustrated in the figure below, considering investors communities’ degree of commitment, such as the extent to which their involvement influences strategic choices and the main aspects of the business. The contribution of experienced investors in the co-development of the product and growth strategy of the business represents an extremely valuable source of knowledge for early businesses, therefore included in the internal development category. Activities related to the promotion of the business and connections to influential stakeholders have been included in the external market promotion category due to the short-term commitment required and their focus on networking-sharing activities.

Finally, considering the importance of crowd involvement in company’s internal and external

development, we grouped our second order themes in three aggregate dimensions: (1) internal knowledge development, (2) the acquisition of external legitimacy, and (3) the raise of business awareness.

Figure 2: Investors communities involvement



Internal Knowledge Development

Two specific themes related to the accumulation of internal knowledge characterise our informants' experience: (1) product-related and (2) business-related knowledge. In presenting our findings, we coordinated and integrated the finding narrative showing the progressive data structure, Figure 1, the emergent model, as illustrated in Figure 2, and additional supporting data (Table 1 in the Appendix A).

Product Development

Early stage businesses that approached crowdfunding have particularly benefitted from the active participation of the crowd in activities related to the finalization of the product before its commercialization. Crowdfunding investors have been particularly helpful in accelerating the development phase by providing feedback and suggestions on the beta-version of the product allowing founders to optimize their product by factoring in users experience, technology-related advice, and defining the product positioning strategy.

As the founder of Compare and Share expressed it, “You get this community of investors and you are able to exploit its collective intelligence. We got some investors who had some really useful inputs in terms of things to consider and some useful feedback on the product itself, such as how we deal with the product, how we develop the product, and how we build it around users experience. This has been really useful.”

The heterogeneous expertise that characterizes the crowd of investors is undoubtedly a value-add for early-stage businesses. Crowdfunding enables entrepreneurs to account for different perspectives of people belonging to different industries with different degrees of expertise. Having a wide pool of investors willing to support further the product development process represents a strong market validation for the business, as the founders of Triggertrap explained, “We are developing a product that in some circumstances we really understand, but on the other side we are specialist, so our target audience may use our product not in the way we would. When we started the crowdfunding campaign we had other perspectives, people told us about other things that were important to them. It is possible to have a lot quantitative and qualitative feedback from your potential customers, and this influences the way you develop the product and which part of your prototype you bring to the market.” (see additional evidence in Table 2).

This emergent level of involvement served as foundation for an established relationship and exchange of knowledge between investors and founders.

Business Development

The second theme within the “internal development” category includes activities regarding the business development. As illustrated in Figure 2, crowdfunding investors through their active participation have been providing entrepreneurs with different degrees of knowledge. Following the classification of procedural knowledge important in the start-up process, as stated by Wiklund and Sheperd, (2003), our interviews highlight how interactions between founders and investors enabled the accumulation of internal knowledge about the (1) specific industry in which the new venture compete and (2) the type of strategic or business approach that the new venture might take within the industry.

As the founder of Blanco Nino explained, “One of the investors actually became the Operations Director of the company. He is really an accomplished individual and recently retired. He is very enthusiastic, he has a lot of knowledge and he is eager to work. It is great to have him involved. Another investor would be assisting with the expansion into the European market. Our initial plan was to cover the UK and Irish market; we would look at the European market maybe in year two or three. This investor is allowing for the expansion into the European market nearly instantly, and he has a good contact-base for the distributors and supply chain, so he will speed up the all process. Thanks to this particular individual we can really leverage the growth rate a lot.”

More specifically, our informants reported crowd participation in defining the growth path of the company either by joining the board of director or by supporting and facilitating the company expansion through their own personal network. Furthermore, some investors provided complementary services necessary to the business and established partnerships with the company. Another aspect worth noting is the support received in finalising additional fundraising necessary to support the business development further. As the founder of PlayEnable explained, “One of the investors invested again, he put a little more money and a couple of them helped me to obtain additional financing. One investor is in the medical space Johnson & Johnson so I reach out to him to fit into his program.”

Frequently investors participated in the company development as advisors in different aspects of the business, such as sales, operations, marketing, and all activities that are critical to successful launching the business. This knowledge about creating and starting up new ventures, as in the classification by Wiklund and Sheperd, (2003), generated both tacit and explicit knowledge that is helpful to the new venture. As the founder of IncuBus reported, “They are all actively involved, whether through mentoring, as advisors, or just providing guidance.” (see additional evidence in Table 2). It is also worth noting that the crowd has been involved in the fundraising process, either by investing further resources or by providing contacts with potential investors. Liquidity can also serve as a buffer to the liabilities of newness. It provides “comfort” to potential external stakeholders encouraging their investments.

By influencing the development of the product and the strategic plan of the business, online

crowdfunding communities deliver a critical intangible value necessary to entrepreneurs to reduce uncertainty and complement existing knowledge (Brush, Greene, & Hart, 2001; West & Noel, 2009). Connecting with people with different perspectives and understandings can yield important knowledge unaccounted for by past industry, business, or managerial experiences that entrepreneurs bring with them. Company's openness to co-innovation allows early-stage entrepreneurs to collect critical inputs to develop and market products that better meet customers' needs (Rothwell, 1977), and exploit new markets and opportunities.

External legitimacy and Business awareness

Within the "external market promotion" category two themes emerged identifying investors contribution in (1) introducing the product to market and (2) promoting the business through their own network.

External Stakeholders

Entrepreneurs through interactions with investors communities have been able to exploit their network to facilitate the introduction of the product to market, partner with key market players, and expanding company's own network.

As the founders of PlayEnable and IncuBus reported, "I keep reaching out to them to help me to connect. We are also launching a corporate wellness function. One of our investors is in the medical space Johnson & Johnson so I reach out to him to fit into his program." Additionally, "Crowdfunding gives you access to a lot of people who have interest in your businesses. They tend to offer help when they can and also through their network. They put you in touch with relevant people and they will share your messages."

One important aspect that emerged during our interviews is the opportunity for new businesses to build a solid customer-base willing to support the development of the company further by actively using the product and referring it through their own network. As the founder of Blanco Nino explained, "We essentially have three times a breakeven number of clients ready to purchase the product before its production. The people who are investing are not just normal customers, they

are community members and they are very enthusiastic and passionate about what we do. They don't just buy the product, they go through extraordinary lenses to get you in the stores in their local neighbours, to give you introductions to people that might help you to export or distribute the product.”

External networks provide access to individuals who possess relevant knowledge and connections for entrepreneurs difficult to gain through their personal experience or contacts only. Investors communities support entrepreneurs in their efforts to start and growth the company and recognise new opportunities, profitable market niche or industry. Moreover, obtaining acceptance and validation by external stakeholders will also help new venture to establish legitimacy in its organizational field (Singh, Tucker, & House, 1986).

Business Ambassadors

Crowdfunding investors, as emerged from our interviews, played an important role as a marketing channel, fostering company awareness and visibility. As the founder of IncuBus reported, “One more positive aspect of crowdfunding is the buzz it creates from the beginning of the online campaign: you share it, your friends share it, your partners share it, all the stakeholders are sharing. So before you get started people already know about it, people heard about it, people want to get involved.”

The crowd enabled entrepreneurs to increment exponentially the number of potential customers even before the commercialization of the product, as the founder of One City explained, “The best thing is that they are evangelist of the product. Once the company is running there is nothing better than word of mouth that multiply by twenty the potential customers.” (Additional evidence is reported in Table 2).

Overall, our study illustrates how crowd acts as accelerators for the popularity and brand recognition of the new venture, which goes along with the notion of Lambert and Schwienbacher (2010), who argue that crowdfunding acts as an inexpensive tool to raise awareness. Investors communities act as ambassadors of the business promoting the product and the business through social media, friends, family, friends of friends, therefore expanding company visibility.

Table 2: Data supporting Interpretations of investors' involvement process

Representative quotations	Theme
Internal knowledge development	
<p><i>"They tell what's wrong in the website. A couple of them got in contact to tell us about our SSL certificate that was not working correctly in certain devices. We had one guy who is an engineer reaching out saying that when he tried to sign up on the platform to test it out he encountered an error. This is very useful at the first stage for the product testing, so we don't have to do it ourselves, we push it out and say, test it, and they give us feedback on what works and what doesn't."</i> Briefly</p>	
<p><i>"They give feedback and they are all useful. Some of them work for a software company so I reached out to them."</i> PlayEnable</p>	
<p><i>"Our investors are our customers; they give us feedback on the alpha-version of the product."</i> Rendeevoo</p>	
<p><i>"We have investors who are particularly interested in technology itself or they are interested in technology in general so they would give us feedback on the product itself, using test feedback, come up with suggestions and idea how we can improve our technology. In terms of product development, it is a real kind of tech aspect. We got some investors who had some really useful input in terms of just things to consider and some useful feedback on the product itself. How we deal with the product, how we develop the product, how we build it around users experience. This has been really useful. This is kind of one area, technologic aspect. In terms of software development we had information also from crowdfunders, what I have mentioned early about technology input. And equally about web design as well."</i> Compare and Share</p>	
<p><i>"The one thing you can trust crowdfunding people to do is to give a lot of feedback. So people will definitely pipe-up, they will send you messages and give feedback. And that is really useful. We are developing a product that in some circumstances we really understand, but on the other side we are specialists, so our target audience may use our product not in the way we would. With crowdfunding it is possible to have a lot quantitative and qualitative feedback from your potential customers, which is amazing, because they pledge their money and they are happy to give you information about how they use your product, and this influences the way you develop the product and which part of your prototype you bring to the market. We also have reached out to people to ask for help to develop part of the product that was very specialist, and it has been very helpful to talk to them, to get some information and find out how they are able to help. They would be very good at giving feedback or helping with the strategy of the product."</i> Trigger Trap</p>	Product Development
<p><i>"About 10% of them are actively involved whether through mentoring, as advisors, or just providing guidance. A couple of them had more influence because we wanted their knowledge and expertise. For instance one of our advisor is a sales expert and it is good for us to get advise in that side of the business."</i> IncuBus</p>	Business Development
<p><i>"Even if there is not a direct help from them, apart from some general advice, there is the fact that the majority of them work in the City, which is our market, they all will become our first clients."</i> Pizza Rossa</p>	
<p><i>"Some of them are helping us with marketing and strategy."</i> Oppo Brothers</p>	
<p><i>"There are others who are involved in or interested in the business development, a sort of our growth strategy, they would make suggestions about how the company can growth, scale and develop. I wouldn't say that these are competences we do not have, these are competences that we do have however we got some really useful perspectives. They have very interesting level of experience."</i> Compare and Share</p>	
<p><i>"We have conversation about our strategy with bigger investors."</i> Equidam</p>	
<p><i>"The bigger crowdfunding investor, who is in the board, has twenty restaurants in South America and he is interested in taking the franchising in Brasil. He pushes to go in the future in that direction."</i> Pizza Rossa</p>	
<p><i>"Only one investor is involved. Mainly he helps me for strategy and business management. He became chairman."</i> Wild Trail</p>	
<p><i>"Another investors, who is an entrepreneur and founded her consultant company ten years ago, offered me help for business development and in the future she is interested in franchising shops outside London."</i> Pizza Rossa</p>	
<p><i>"The main activity we have some involved in is raising finance for property development scheme. We are working actively with two of our investors who now are kind of helping us on treading future investments. Also, we have been contacted the other day by somebody who is a renewable energy expert who came through offering services"</i> HAB Housing</p>	
External legitimacy	
<p><i>"What they mainly help us with is introductions. They introduce us to people and companies that then may became our clients."</i> Escape the City</p>	

"The bigger investor was an introduction from an earlier round, and we had quite a few introductions from people giving us marketing intelligence." Near Desk **External Stakeholders**

"We are receiving email from them. For example some have small shops and restaurants and they want to buy wine. Someone wants to do events and all this kind of things. We ask them to refer any friends who have corporate event services, wine club, etc. So they help to connect to events managers, they email their buddies who have wine club, and they have all been useful." Hamble Grape

"One investors based in Dubai wrote me some days ago: "If you are interested in franchising in Dubai let me know because I have many contacts here and I can help you in that." Pizza Rossa

Business awareness

"They work well as business ambassador through social media." Equidam

"During the campaign crowd funders spread the information, people loved the idea and they wanted to make it happen." Goodio Goods **Business Ambassadors**

"We think that they are very useful as a marketing channel." Near Desk

"They act as market mavens, which means that they promote the product externally, which is the plus side." Play Enable

4.1 Crowdfunding investors' involvement: a cross-organizations analysis

Why some organizations are more open than others? How entrepreneurs shall approach the crowd to get the most out of it? Oftentimes company's idiosyncratic characteristics and founder's previous expertise exert influence on company's openness to external knowledge sources. We observe different level of crowd involvement across our sample organizations.

As detailed in Table 3, about 55% of the organizations in the sample engage their investors in activities focused on the company internal development; about 18% of them established relationships with the crowd aiming at promoting externally the business, meanwhile the remaining 27% liaise with the crowd only for quarterly company updates.

What internal and external factors to the organizations could influence company openness to the investors communities? Starting with internal factors, we focused our attention on founders' characteristics. Specifically, considering founders' industry and entrepreneurial experience – i.e. first-time or serial entrepreneurs – we observe that more experienced founders tend, on average, to engage less with their investors communities. This tendency could be also related to the presence of professional investors. In fact, we observe that venture-backed companies are less likely to involve the crowd in daily operations. About half of the companies having no relationship with investors are backed by angel investors, venture capitalists or are part of an accelerator programme that, as stressed by several empirical studies in the entrepreneurial finance literature (see e.g. Bertoni, Colombo, & Grilli, 2011; see Colombo & Grilli, 2010), provide entrepreneurs with

value-add services crucial for the development of the company. Entrepreneurs, therefore, are less motivated to engage with the community to complement their existing knowledge, often referring to it as a “time-consuming activity with no guarantees about the outcome.”

Assessing external factors that may influence company openness to the crowd, we classified our sample on venture-backed and non-venture backed companies, as reported in Table 3. Within those two subsamples we observe a recurrent trend: experienced founders engage the crowd mainly in activities related to the external promotion of the company, while less-experienced founders are more open to involve the crowd in the company internal development.

It is also worth understanding the characteristics of those organizations that do not have established any sort of relationship with their investors communities, which represent the 27% of the overall companies. About 44% of them are venture-backed and 56% are not backed by professional investors. Looking at venture-backed companies, we observe that founders have a sound experience on the industry they operate in, on average 7 years, but they have a relatively low experience in creating and growing new ventures.

If we look at the other extreme we found a similar trend. Founders of non venture-backed companies having no relationship with the crowd have a deep industry knowledge and entrepreneurial experience, all having founded at least one previous company. Table 3 reports additional information about investors involvement and founders’ characteristics.

Table 3: Cross-organizations analysis

	Internal Development	External Market Promotion	No Involvement
Number of companies	55%	18%	27%
Average Entrepreneurial Experience	0.8	1.4	0.8
Average Industry Tenure (years)	5.4	7	7.3
Venture-backed companies	15%	27%	44%
Venture-backed companies	15%	27%	44%
Average Entrepreneurial Experience	0.4	1.6	0.4
Average Industry Tenure (years)	3	3.8	6.7
Non Venture-backed companies	85%	73%	56%
Average Entrepreneurial Experience	0.9	1.3	1.1
Average Industry Tenure (years)	5.8	8.3	7.7

About a year and half after our data collection we measure companies' performance in terms of survival rate and growth score¹. 15% of the companies in our sample are not active anymore. Considering the performance of the remaining companies both in terms of failure rate and growth score, as illustrated in Table 4, we observe that while serial entrepreneurs would benefit from involving the crowd both in internal development and external market promotion activities, first-time entrepreneurs would gain more from an open approach to online communities of investors in activities mainly related to the external market promotion of the company. In fact, first-time entrepreneurs who involved the crowd in the product co-development and growth strategy of the business reported a lower growth score and a higher failure rate than first-time entrepreneurs adopting a lighter open approach to the crowd.

Table 4: Crowd involvement and company performance

Internal Development	Companies (%)	Growth Score	Failure rate
First-time Entrepreneurs	43%	8	21%
Serial Entrepreneurs	57%	72	10%
External Market Promotion			
First-time Entrepreneurs	55%	75	17%
Serial Entrepreneurs	45%	94	0%

Often a company business model influences the extent to which entrepreneurs are able to leverage the crowd to access to valuable knowledge assets. We can observe from the data (see Table 5) that crowdfunding online communities contribute more actively to the entrepreneurial firms' product/service development process providing feedback and engaging in problem solving activities for companies characterised by a business-to-consumers business model. On the other hand, crowd investors of business-to-business companies support entrepreneurs mainly through their own network to introduce the product to market and connect the business with key external stakeholders, therefore expanding company's legitimacy and awareness.

¹ The companies' growth score has been extracted from Mattermark database. The score, as indicated in the Mattermark website, is calculated by considering companies online footprint growth. It is measured on a weekly basis and averaged over time to provide a trending metric over time. A positive score indicates aggregate growth across these signals, a score closer to zero indicates a plateau, and a negative score indicates a declining online footprint.

Table 5: Company business model and crowd involvement

	Internal Development	External Market Promotion	No Involvement
B2B	13%	31%	56%
B2C	68%	15%	17%

Moreover, we wanted to account for the fact that having a large pool of investors could somehow jeopardize the possibility for entrepreneurs to actively involve them since it would require time and valuable resources that they may not possess. Contrary to our expectations, our informants reported that the number of investors has not had any influence on the involvement and that online crowdfunding platforms have a really simple mechanism that allows to easily manage investors communities, to communicate with them quickly, and to post questions and answers regarding the business. Some of them also highlighted the benefits of having a high number of investors, specifically when they act as market mavens, as advocates for the business, and when they give feedback as customers. The managing director of HAB Housing reported, *“I think we see generally having a high number of investors as a positive thing. With the email list it is easy to communicate with people. We don’t see that as a problem. We have advocates for the business and we hope we go to different areas to carry out development and hopefully we will have support from people with knowledge on the ground in the local area.”*

5. Discussion and implications

One of the crucial factors to new ventures survival and growth is the openness to external knowledge sources to compensate the initial lack of tangible and intangible resources. Open innovation implies leveraging external knowledge and commercialization opportunities by managing the flows of innovation-related knowledge and technologies across corporate boundaries (Chesbrough & Bogers, 2014; West & Bogers, 2014). External actors such as users, field experts, investors, and other stakeholders have been widely recognised as co-innovators (Chesbrough 2003; Chesbrough et al. 2006; von Hippel, 2005).

Our study assesses the role of the crowd in contributing to the development of the company through an active participation as co-innovator either of the product or business, and how an open

approach to new ventures development affect their short-term survival.

Our analysis of sixty different companies that approached equity crowdfunding in Europe suggests that the benefits of crowdfunding are not limited to attracting capital. Interactions between entrepreneurs and crowdfunding communities can contribute to the entrepreneurial firms' product/service development process and external market promotion and engage in problem solving activities with entrepreneurs.

How entrepreneurs can benefits from an open approach towards online crowdfunding communities?

#Product Co-Development

Online crowdfunding communities supported new ventures during the product development process, becoming product co-creators and engaging in multiple stages of the innovation process (ideation, development, and launch). Crowdfunding investors have been particularly helpful in accelerating the product development process by providing feedback and suggestions on the beta-version of the product allowing founders to finalize it by factoring in users experience, technology-related advice, and defining the product positioning strategy. It's a built in, on-demand crowdsourcing network with a vested interest in helping the business by offering expertise, time, enthusiasm, and support. For some businesses this is much more useful than having a few angels or venture capitalists investors on board.

#Defining Company's Growth Strategy

Often new ventures lack market and industry knowledge. The engagement of investor communities in problem solving and business development activities allows entrepreneurs to gain insights about the industry in which they compete and the type of strategic or business approach best suited to the industry. Moreover, an open approach to international communities of investors is a great way to build faster an international exposure, expand a company geographical reach, and test out the business proposition on a new target audience.

#External Market Promotion

New ventures have limited resources and are new to the market; it may be vital to establish close

relationships with outside parties. Oftentimes, as they lack knowledge of the market, they do not have a wide network to connect with key market players, influencers, and stakeholders. A collaborative and open approach is sometimes essential for entrepreneurs to exploit investor communities' network to introduce the product to market, establish partnerships with market players, and expand company's own network.

Entrepreneurs' past experience and company's idiosyncratic characteristics were found to influence the openness to investors communities. Specifically, we found that the presence of professional investors as a company shareholder significantly affects the involvement of crowdfunding communities, reducing it to sporadic interactions mainly finalized to networking through introductions to key market players and potential partners. Moreover, we observe that the more entrepreneurs have a sound industry and business experience, the less they interact with their investors communities. Particularly for early-stage companies, professional investors can be great mentors, offer great industry contacts and provide invaluable expertise. But having access to hundreds of mentors, marketers, techies, investment bankers, lawyers, beta testers and potential customers can be great way to validate the product and the business model, to gain international exposure and access to a heterogeneous network difficult to find elsewhere.

How entrepreneurs should use the crowd to succeed?

First-time and serial entrepreneurs shall adopt a different open approach to the crowd. Considering companies short-term performance in terms of survival and growth score it emerges that serial entrepreneurs tend to have a higher performance when engaging with investors in internal development and external market promotion activities. On the other hand, first-time entrepreneurs report a higher performance and short-term survival rate when adopting a lighter open approach to investors communities, interacting with them for issues mainly related to the external market promotion of the company. If open is good, why too much openness can be detrimental for first-time entrepreneurs?

New ventures are extremely strapped for time and resources and getting feedback before and during the "building process" has a serious long-term revenue-generating impact in the company.

Developing a product with relevant inputs and engaging with potential customers early help to validate the demand of the product and get close to the target product market fit and iterate from it. Nevertheless, sometimes it's easy to get distracted by a large amount of information. With many people constantly sharing their feedback and opinion of the product and business, it's easy for inexperienced entrepreneurs to get wrapped up in this loop and lose focus. Moreover, people give feedback based on their market knowledge, domain experience, personal needs, and preferences. It's entrepreneurs' responsibility to select and recognise good feedback over bad feedback and apply that knowledge to the company without losing sight of their vision.

If well managed, having a large community of investors can be a huge competitive-advantage for first-time entrepreneurs. A first step should be selecting among them those who are also potential customers.

Lastly, a company business model also defines the key attributes of an open approach. Business-to-consumer products/services are often concepts more easy to understand allowing entrepreneurs to leverage common knowledge and skills for a product co-innovation, collect critical inputs to develop and market products that better meet customers' needs, build a customer-base, and exploit new markets and opportunities. Business-to-business companies would benefit more from investors' network in terms of connection with potential partners and key market players.

Entrepreneurs have much to learn from the crowd. By collaborating with a range of experts in building knowledge and solving problems, entrepreneurs may broaden their understanding of unserved needs and gain insights into novel approaches to problem solving and innovation. Adopting an open mindset and deciphering how to hack the power of the crowd is the next step for entrepreneurs to successfully exploit new ideas, penetrate the market, and sustain their competitive edge.

Appendix A

- Why did you decide to use equity crowdfunding to finance your company?
- Who are your crowdfunding investors?
- In which activities are your crowdfunding investors involved?
 - Could you please provide some examples?
- How many crowdfunding investors have been involved in your company's activities?
- Which competences/information did you acquire from your crowdfunding investors?
- How did investors' involvement influence your company's development?
- How often do you communicate with your investors?
- Which (if any) negative aspects did you notice about crowdfunding?
- Please indicate to what extent the following categories represent the composition of your company shareholders structure:

Shareholders	Total shares
Entrepreneur and Co-founders	
Friends & Family	
Crowd-funders	
Venture Capitalists	
Others	

Founders' Personal information:

- Industry tenure (years)
- Number of previous start-up founded
- Years of experience in managerial functions prior founding the current company

Table 1: Summary of Interview Data Collection

Organization	Industry	Amount Raised (£)	Location	Status	Venture Backed
Blanco Nino	Food	121,550	UK	Active	No
Compare & Share	e-commerce	151,570	UK	Active	No
Dinnr	Food	60,000	UK	Closed	Angel investors
Equidam	Financial Services	50,000	Netherlands	Active	Angel investors
Escape The City	HR	600,000	UK	Active	No
Fuzmo	Social Media	55,450	UK	Active	No
Goodio Goods	Food	42,000	Finland	Active	No
Hab Housing	Housing Development	1,972,560	UK	Active	No
Microcosm	Software	150,000	UK	Active	No
Near Desk	Service	1,184,512	UK	Active	Angel investors

Anonymus	High-tech	46,000	Netherlands	Active	Angel investors
One City	Social Media	118,760	UK	Closed	No
Pizza Rossa	Food	440,000	UK	Active	No
PlayEnable	e-commerce	25,000	UK	Closed	No
Rendeevoo	Social Media	33,830	UK	Active	Angel investors
Satago	Software	30,000	UK	Active	Accelerator
Viva La Vita	e-commerce	34,510	UK	Active	No
Wild Trail	Food	168,170	UK	Active	No
Zero Carbon Food	Food	580,810	UK	Active	No
TriggerTrap	High-Tech	100,000	UK	Closed	No
MyCarGossip	Service	30,830	UK	Closed	No
IncuBus	Pre-accelerator	53,770	UK	Active	No
Humble Grape	Wine	356,670	UK	Active	Angel investors
Buuyers	Software	149,093	France	Active	No
Beibamboo	Clothing	58,738	Finland	Active	No
DualSun	Renewable energy	368,500	France	Active	No
Carzapp	Car sharing	184,200	Germany	Active	No
Ennesys	Renewable energy	221,000	France	Active	No
LeaseRad GmgH	Leasing	162,100	Germany	Active	No
PerfectEarth	Entertainment	59,000	Netherlands	Active	No
Jascha	Fashion	40,400	Sweden	Active	No
PUR etc_ELOVIO	Food	147,500	France	Active	No
Eggs Included	Food	38,500	Sweden	Closed	No
Anonimo	Software	-	Sweden	Active	No
BandApp	Music	275,000	UK	Active	No
BigBurn	Food	12,000	UK	Active	No
Stampley	Software	239,800	UK	Active	Accelerator
Briefly	HR	100,000	UK	Active	No
Edge Forecast	Financial Services	15,000	UK	Active	No
Firefly	Travel	345,000	UK	Active	No
GamesGrabr	Gaming	625,000	UK	Active	No
InvestUp	Crowdfunding	137,000	UK	Active	Accelerator
Kinopto	Movie	35,000	UK	Closed	No
LineUp	Event discovery	255,000	UK	Active	Accelerator
Maily	Software	352,270	Belgium	Active	Accelerator
Nurturey	Software	72,000	UK	Active	No
Ovivo	Telecomm.	150,000	UK	Closed	No
Poq Commerce	e-commerce	332,390	UK	Active	Accelerator
Shaken Cocktails	Food & Drinks	118,690	UK	Active	No

Wriggle	Food & Drinks	156,574	UK	Active	Accelerator
Bubble & Balm	Cosmetics	75,000	UK	Closed	No
Giftgaming	Gaming	104,005	UK	Active	No
7billionideas	Social Media	30,000	UK	Active	No
Oppo Brothers	Food	339,049	UK	Active	No
Devario Limited	Machine	125,000	UK	Active	No
4x4 aviation	Aviation	58,000	UK	Active	No
Earwing Academic Reporting	Education	140,000	UK	Active	No
Neuronax	Biotech	806,000	UK	Active	Angel investors
Lymo	Real Estate	368,424	France	Active	Angel investors
Pulmorphix	Pharmaceutical	124,910	UK	Active	No

References

- Agrawal, A., Catalini, C., & Goldfarb, A. (2011). Friends, family, and the flat world: The geography of crowdfunding. *NBER Working Paper*, 16820.
- Bertoni, F., Colombo, M. G., & Grilli, L. (2011). Venture capital financing and the growth of high-tech start-ups: Disentangling treatment from selection effects. *Research Policy*, 40(7), 1028–1043. doi:10.1016/j.respol.2011.03.008
- Bottazzi, L., Darin, M., & Hellmann, T. (2008). Who are the active investors? Evidence from venture capital. *Journal of Financial Economics*, 89(3), 488–512. doi:10.1016/j.jfineco.2007.09.003
- Brush, C. G., Greene, P. G., & Hart, M. M. (2001). From initial idea to unique advantage: The entrepreneurial challenge of constructing a resource base. *The Academy of Management Executive*, 15(1), 64–78.
- Chesbrough, H. (2003). *Open innovation: The new imperative for creating and profiting from technology*. Boston: Harvard Business Press.
- Chesbrough, H. (2006). *Open business models: How to thrive in the new innovation landscape*. Boston: Harvard Business Press.
- Chesbrough, H. (2012). Open innovation: Where we've been and where we're going. *Research-Technology Management*, 55(4), 20-27.
- Chesbrough, H., and Bogers, M. (2014). Explicating open innovation: Clarifying an emerging paradigm for understanding innovation. In H. Chesbrough, W. Vanhaverbeke, and J. West (Eds.), *New Frontiers in Open Innovation*: 3-28. Oxford: Oxford University Press.
- Colombo, M. G., Franzoni, C., & Rossi-Lamastra, C. (2014). Internal social capital and the attraction of early contributions in crowdfunding. *Entrepreneurship Theory and Practice*.
- Colombo, M. G., & Grilli, L. (2006). Founders' human capital and the growth of new technology-based firms: A competence-based view. *Research Policy*, 34(6), 795–816. doi:10.1016/j.respol.2005.03.010
- Colombo, M. G., & Grilli, L. (2010). On growth drivers of high-tech start-ups: Exploring the role of founders' human capital and venture capital. *Journal of Business Venturing*, 25(6), 610–626. doi:10.1016/j.jbusvent.2009.01.005
- Creswell, J. W. (2002). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. Upper Saddle River, NJ: Pearson Education.
- Eisenhardt, K.M., and Schoonhoven, C.B. (1996). Resource-based view of strategic allianceformation: strategic and social effects in entrepreneurial firms. *Organization Science*,7(2): 136-150.
- Gerber, E., Hui, J., & Kuo, P. (2012). Crowdfunding: Why people are motivated to post and fund projects on crowdfunding platforms. *CSCW Workshop*. Retrieved from http://www.juliehui.org/wp-content/uploads/2013/04/CSCW_Crowdfunding_Final.pdf
- Gioia, D. a., & Chittipeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. *Strategic Management Journal*, 12(6), 433–448. doi:10.1002/smj.4250120604
- Gioia, D. a., Corley, K. G., & Hamilton, a. L. (2012). Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology. *Organizational Research Methods*, 16(1), 15–31. doi:10.1177/1094428112452151
- Glaser, B., & Strauss, A. (1967). *The discovery grounded theory: strategies for qualitative inquiry*. Aldin, Chicago.
- Hellmann, T., & Puri, M. (2002). Venture capital and the professionalization of start-up firms: Empirical evidence. *The Journal of Finance*, 57(1), 169–197.
- Henkel, J., & von Hippel, E. (2005). *Welfare implications of user innovation* (pp. 45-59). Springer US.
- Hsu, D. H. (2006). Venture Capitalists and Cooperative Start-up Commercialization Strategy. *Management Science*, 52(2), 204–219. doi:10.1287/mnsc.1050.0480
- Lambert, T., & Schvienbacher, A. (2010). An empirical analysis of crowdfunding. *Social Science Research Network*, 1578175.
- Mollick, E. (2014). The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing*, 29(1), 1–16. doi:10.1016/j.jbusvent.2013.06.005

- Prahalad, C., & Ramaswamy, V. (2003). MIT Sloan Management Review. *The New Frontier of Experience Innovation*, 44(4).
- Presutti, M., Boari, C., and Majocchi, A. (2011). The importance of proximity for the start-ups' knowledge acquisition and exploitations, *Journal of Small Business Management*, 49(3): 361-389.
- Rothwell, R. (1977). The characteristics of successful innovators and technically progressive firms. *R&D Management*, 7(3), 191-206.
- Schwiebacher, A., & Larralde, B. (2010). Crowdfunding of small entrepreneurial ventures. *SSRN Electronic Journal*, 2010. Retrieved from <http://lillebørs.dk/wp-content/uploads/edd/2013/06/Schwiebacher-Larralde-2010.pdf>
- Singh, J. V, Tucker, D. J., & House, R. J. (1986). Organizational legitimacy and the liability of newness. *Administrative Science Quarterly*, 171–193.
- Stern, P. N. (1980). Grounded theory methodology: Its uses and processes. *Image*, 12(1), 20–23.
- Stinchcombe, A. L. (1965). Organizations and social structure. *Handbook of Organizations*, 44(2), 142–193.
- Strauss, A., & Corbin, J. (1998). Basics of qualitative research: Techniques and procedures for developing grounded theory. *SAGE Publications, Thousand Oaks, USA*.
- West, J., & Lakhani, K. (2008). Getting clear about communities in open innovation. *Industry and Innovation*, 15(2), 223-231.
- West, G. P., & Noel, T. W. (2009). The impact of knowledge resources on new venture performance. *Journal of Small Business Management*, 47(1), 1–22.
- West, J., and Bogers, M. (2014). Leveraging external sources of innovation: A review of research on open innovation. *Journal of Product Innovation Management*, 31(4): 814- 831.
- Wiklund, J., & Shepherd, D. (2003). Research notes and commentaries: knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. *Strategic management journal*, 24(13), 1307-1314.
- Von Hippel, E. A. (2005). Democratizing innovation. Cambridge, MA: MIT Press.
- Zhang, Y. (2012). An Empirical Study into the Field of Crowdfunding. *Economic Policy*, 34, 231–269.