Solving the puzzle of crowdfunding: Where technology affordances and institutional entrepreneurship collide

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Abstract

Crowdfunding has been embraced by entrepreneurs across the globe as an alternative to traditional sources of funding. However, it is not clear that ICT entrepreneurs in Sweden have embraced it as warmly, despite the potential benefits it offers. This paper explores this empirical puzzle in light of two complementary theoretical literatures: institutional entrepreneurship and technology affordances. It first examines existing institutional logics around startup investment before turning to the features of crowdfunding and whether ICT entrepreneurs perceive these as affordances. We discuss the tension among these affordances, institutional logics, and the crowdfunding platform providers' attempts as an institutional entrepreneur to become "taken for granted" as a legitimate part of the Swedish start-up institutional field.

1. Introduction

Having produced Internet and Communications Technology (ICT) start-ups like Skype, Spotify and Klarna, Sweden has a reputation for producing world-class ICT entrepreneurs. The country is considered by the Global Economic Forum to be the world's second most entrepreneurial country [17] and it has an internet penetration of 89% [14]. Thus, it should be expected that an ICT-enabled phenomenon such as crowdfunding would hold particular appeal for ICT entrepreneurs. However, while crowdfunding's appeal has increased elsewhere in the world, many in Swedish entrepreneurial circles suggest that the phenomenon may not be gaining momentum in Sweden, and *specifically* among ICT entrepreneurs, despite its potential for them. This presents an empirical puzzle: given that crowdfunding holds potential benefits for entrepreneurs and that the phenomenon is growing elsewhere in the world, what is it about ICT

entrepreneurs in Sweden that makes them not want to use local crowdfunding platforms?

This paper examines this empirical puzzle in light of two complementary theoretical literatures: institutional entrepreneurship and technology affordances. At the heart of crowdfunding are the crowdfunding platform providers who drive the implementation of the crowdfunding model by building and deploying platforms. These providers are also institutional entrepreneurs whom initiate changes that contribute to transforming existing, or creating new, institutions [11]. The crowdfunding platforms are Internet-based technologies that enable an entrepreneur to access a crowd of individuals anywhere across the globe to raise external financing to fund his/her venture as opposed to through the traditional means of soliciting a small group of local investors [10]. Thus, these platform technologies afford entrepreneurs and other crowdfunding actors certain "features", i.e., what the creators and designers of the technology intend it to be used for [26]. However, these features may not be perceived as affording the entrepreneurs the anticipated "affordances" – or they may be built upon thereby allowing for different "affordances" than those the creators intended. In this paper we investigate 1) what features crowdfunding platform providers design into their platforms for entrepreneurs, 2) whether entrepreneurs perceive these as real affordances, and 3) how crowdfunding platform providers as institutional entrepreneurs affect institutional logics around start-up funding.

This paper also sheds light on a theoretical puzzle: given a set of technological features, how do existing institutional logics affect their perceived affordances and what role do institutional entrepreneurs play in affecting these perceptions?

2. The Crowdfunding Phenomenon

Crowdfunding falls under the more general phenomenon of crowdsourcing, and while the concept of crowdfunding has existed for some time

across disparate industries, it is only during the past ten years that the phenomenon in its current incarnation has been gaining momentum [10]

In their initial stages new ventures face considerable difficulties in attracting external financing (see e.g., [5] [6]). As such, entrepreneurs often invest their own funds or turn to friends and family to raise the needed capital [1]. Crowdfunding allows an entrepreneur to pitch an idea or plan to family and friends, their extended online networks and others with Internet access. Indeed crowdfunding can be defined as the accumulation of small investments in individual projects by many individuals (the "crowd") via the Internet and social networks [10].

There are many variations on this general approach; four established types of crowdfunding exist: donation-based, reward-based, equity-based, and lending or debt-based (see [10]). Many crowdfunding platforms behave as "match-makers", serving as a public meeting place for entrepreneurs and would-be funders, although some implement their own screening processes prior to posting a project on their platform while others do not. Some equity crowdfunding platforms, like the Dutch platform Symbid, have financial licenses and not only screen projects but give investment advice. Platforms usually charge a percentage of the amount raised, typically between 5 and 12 percent, while some also charge an investor fee [10].

In May 2013, there were around 800 crowdfunding platforms worldwide and crowdfunding initiatives raised an estimated 2.6 billion USD in 2012, including about 945 million USD in Europe across 470 000 campaigns [29].

There are no public statistics for crowdfunding for Sweden as a whole but, as of May 2013, and based on the publicly available numbers, we have estimated the amount raised in Sweden to be around USD 4 million, with 1 million of this through reward-based crowdfunding and 3 million through equity-based crowdfunding. The primary platform that deals with entrepreneurs, FundedByMe, raised around USD 3.8 million of that across 744 successful projects. Excluding FundedByMe itself, 25 of these successes were Technology or Internet related (by the platform's definition), but only three have been *entrepreneurial* ICT projects as opposed to the more common social projects. Two raised USD 38 000 through reward-based crowdfunding while the third raised USD 150 000 through equity crowdfunding.

3. Theoretical Background and Research Questions

Below we provide a brief overview of the institutional logics and institutional entrepreneurship literature through the lens of technology affordances and develop our research questions.

3.1. Technology Affordances

In the IS discipline, an affordance perspective has gained prominence as a useful analytical lens to studying the technology appropriation process and the intricate relationships between the technical and the social (e.g. [13] [22] [28] [39]). Technology affordances are "action possibilities and opportunities that emerge from actors engaging with a focal technology" [13 at 238] while technology constraints are the "ways in which an individual or organization can be held back from accomplishing a particular goal when using a technology or system" [27 at 1].

Affordances enable and constrain action with the technology [13], and they are relational, i.e., conceived "as potential interactions between people and technology, rather than as properties of either people or technology" [27 at 1]. One example is a computer game: for a student, the game may afford some fun, but due to a variety of social reasons such as the inappropriateness of playing games in class, the affordance may not be available [13]. By defining affordances and constraints as relational concepts, when investigating patterns of technology use, scholars can go beyond the sole investigation of human and organizational attributes or of the features of the technology to explore how the use of the technology differs between individuals due to the user's relation with the technology [27].

While scholars may start by analyzing the features and functionalities of the technology or by analyzing the human and organizational purposes of using the technology, the investigation of the interactions among them underlies this approach [27]. One well-cited study is that by Leonardi [21] in which the twin notions of affordances and constraints were used to represent the twin dimensions of human and material agencies to study how routines and technology affect each other in automotive design. Leonardi used the concept of imbrication, i.e., the arrangement of distinct elements in overlapping patterns so that they function interdependently, to illustrate human and material agencies [13].

Most technology affordance studies are theoretical in nature and, although the field shows great promise in accounting for the socio-material interactions humans have with new technologies, few empirical studies have been conducted outside of an organizational context [27]. Moreover, it was recently noted that although there is a recognition

that ICT-enabled change is a product of both social and material interactions [13] [34], the social interactions, particularly interactions between agency and institutional embeddedness, require further study.

3.2. Institutional Logics and Institutional Entrepreneurship

Institutional logics are part of a broader, accepted belief system about what constitute legitimate expectations and goals within a shared field [3] [24] [35] [36]. These logics can focus the attention of decision makers on a limited set of options [30] and lead to decisions that are both logically consistent with the existing status quo and reinforce organizational identities and strategies [36]. Like institutionalization in general, shifts in institutional logics have been explored in some detail in the past few decades, including competing intra-organization logics that result in the formation of hybrid models [3] and variation in practice [23] [24]. However, less is known about the interplay between agency, institutional pressures, and changes in institutional logics [19] [24].

Changes in institutional logics can result from a process driven by an institutional entrepreneur within an institutional field consisting of actors that can be organizations or groups of organizations [16] [20] or individuals or groups of individuals [15] [26]. In order for an actor to be considered an institutional entrepreneur, the literature suggests that an actor fulfill two conditions: 1) initiate divergent changes and 2) actively participate in the implementation of these changes [4]. Early studies tended to suggest that institutional entrepreneurs deliberately developed strategies aimed at changing the institutional environments within which they were embedded [8] [9]. Other, more recent, studies have suggested that intentions and narratives evolve at different steps of the change process [7]. Indeed, field-level disruptions may be completely unintentional [25].

Efforts by institutional entrepreneurs, even when distributed across numerous actors, to change institutional logics are not always successful. Failures are suggested to be common [11], yet few are subsequently reported in the literature [4] [19]. Previous research on institutional entrepreneurship has identified a set of barriers to transformation: cognitive, structural, and processual, which prevent institutional entrepreneurs from convincing potential adopters to change their behavior. For example, a study of sustainability managers at a Danish biotech company who had a goal to develop low-cost products for emergent markets in the developing world revealed that even though these managers mobilized the necessary resources, they were unable to convince others in the organization to implement the novel practice due to an interlocking pattern of cognitive, structural, and processual barriers [31].

While research on institutional entrepreneurship is growing, there are still many areas of limited research (see [4] for a discussion). Institutional entrepreneurship is a complex process involving many different actors, e.g., individuals, groups/communities, and organizations, thus one area that holds promise is multi-level research [4]. Such multi-level studies would enable a more fine-grained understanding of the institutional entrepreneurship processes by examining how individual actors are embedded in organizations that are embedded not only in organizational fields but also in local geographic communities [4].

3.3 Research Questions

Integrating the above theoretical background with our empirical focus on crowdfunding, we arrive at the following research questions: *How do the prevalent start-up funding institutional logics affect entrepreneurs' perceptions of the affordances of crowdfunding platforms? Furthermore, what role do these institutional logics play in affecting the narratives of the institutional entrepreneur?*

4. Methodology

To address our research questions, we have adopted a case research approach to the empirical investigation because of the importance of studying the phenomenon of crowdfunding in its real-life context [38]. This approach was particularly important given our emphasis on studying the actual dynamics related to a potential shift in institutional logic due to the implementation of crowdfunding. A second reason for choosing a case study approach was that we were of the opinion that the existing literature did not adequately describe the phenomenon under investigation [12].

Between January and May 2013 we interviewed 20 individuals in the start-up institutional field in Sweden: 14 ICT entrepreneurs, two institutional actors, two repeat funders and two crowdfunding platform providers. In order to collect our data, we needed to find active entrepreneurs in the technology and Internet sector in Sweden. We also needed to identify entrepreneurs who had not necessarily chosen to use or had used crowdfunding. Therefore, we started with a database of 143 individuals who attended an annual well-known Swedish networking event called Internetdagarna ("The Internet days")

held by Sweden's Internet Infrastructure Foundation and who had identified themselves as entrepreneurs during registration.

Although there are several widely used models for how to measure individual networking abilities (see [36]), we decided to select individuals to interview from the above database based on the size of their online social networks. Our rationale for this was that the individuals who had a medium to high degree of online social networks were those who were more active in their community and network building activities and who would therefore be more likely to consider crowdfunding as a potential funding source. They would also likely be entrepreneurs who were part of Swedish entrepreneurial networks and would therefore not only be aware of crowdfunding but would have some perspective when it came to other funding options. We categorized these entrepreneurs based upon their online networking activities by tallying the number of connections that each individual had on three of the most widely used social networking sites in Sweden: Facebook, Twitter and LinkedIn.

While we could not necessarily identify the full composition of the network (i.e., the proportion of so-called "strong" and "weak" ties), we tried to distinguish between an individual's personal network (strong ties) and professional network (weak ties) [18] by choosing those individuals who, although having a large number of personal connections on social networking sites like Twitter, Facebook and LinkedIn, had smaller numbers of connections linked to their professional accounts. This structural measure is intended to identify the number of people with whom the entrepreneur may have shared details of his/her business plan or idea prior to its inception [2].

Of the 143 entrepreneurs on the original list, we selected 10 individuals for the first round of interviews based on their online social networks while ensuring a diversity of demographics. During these interviews we asked these entrepreneurs to recommend other people with whom we should speak and also identified other relevant individuals in the start-up institutional field.

After transcribing all the interviews, we coded the content using the open source Coding Analysis Toolkit (CAT), a Qualitative Data Analysis Program (QDAP) hosted by the University Center for Social and Urban Research at the University of Pittsburgh, and QDAP-UMass, in the College of Social and Behavioral Sciences, at the University of Massachusetts Amherst. See Appendix One for the coding scheme used and quotation examples.

Table 1: List of Actors interviewed

	Type of Actor	Industry/Interests
1.	Entrepreneur #1	Mobile questionnaire
2.	Entrepreneur #2	Co-working space
3.	Entrepreneur #3	Crowd sourced food data
4.	Entrepreneur #4	Online education
5.	Entrepreneur #5	Digital design agency
6.	Entrepreneur #6	Online storyboard
7.	Entrepreneur #7	Co-working space
8.	Entrepreneur #8	Digital storytelling
9.	Entrepreneur #9	Blog aggregation tool
10.	Repeat Funder #1	Media industry
11.	Institutional Actor #1	Business coach
12.	Repeat Funder #2	Media and academia
13.	Institutional Actor #2	Not-for-profit agency
14.	Entrepreneur #10	Travel experience app
15.	Entrepreneur #11	Clothing size simulator
16.	Entrepreneur #12	Wifi-sharing app
17.	Entrepreneur #13	Student competition site
18.	Entrepreneur #14	Crowdfunded advertising
19.	Platform #1	Equity-based site
20.	Platform #2	Equity- and Reward-based site

5. Findings

Crowdfunding in Sweden is part of a broader ecosystem that includes institutional logics among entrepreneurs around what a good investor should offer a venture. Our empirical research mapped these institutional logics from the perspective of the ICT entrepreneurs and looked at the features and affordances of crowdfunding platforms and how they related to these institutional logics. Crowdfunding platform providers, as institutional entrepreneurs, have responded to the institutional logics as they see them and have attempted to become "taken for

granted" [15] as part of an institutional logic around raising funding.

5.1. Existing Institutional Logics

The prevalent institutional logic from ICT entrepreneurs around funding early-stage venture funding is that the best funders fulfil three conditions. Firstly, investors should bring an appropriate amount of money to the table – enough that the start-up can afford to cover a significant amount of the venture's existing costs, scale up the business by either hiring new employees, embark on a product expansion or pay for additional publicity.

Secondly, the investor also brings additional skills, experience and a professional network. Some entrepreneurs saw this as a key part of finding the "right" investor – they treated obtaining money from an investor, in exchange for equity, as standard; the thing that set investors apart was the network, skills and experience that they could add to the venture:

Finally, entrepreneurs saw the relationship between an investor and start-up founders as being a partnership. Although some worried that an investor might expect to have more control over the venture than the founders, implicit in that was the idea that the investor would be involved in the running of the company, whether on a board level or an operational level, along with the existing members of the start-up team.

This conception of an appropriate investor is not unique to Sweden [33] and sounds very much like a professional investor, who has money and experience investing. The below quotation illustrated these ideas of what an investor should add to the company:

"We were kind of in the mindset of getting like a good investor in; someone who could add something. And that's still our perspective. The kind of guys who invested in us are really good investors, impressive investors and they add a lot to the company other than money. I wouldn't say it was easy to raise money, but we had a really good case." (Entrepreneur #11)

Examples of investors mentioned included venture capitalists, angel investors, Swedish soft loan providers, banks and personal funds, although preference was expressed for equity investments and soft loans because they best provided the above advantages.

5.2. Platform Features and Affordances

Crowdfunding for ICT entrepreneurs in Sweden has been characterized by two 'stages', the first being the introduction of reward-based crowdfunding and the second equity crowdfunding, which has recently begun in Sweden. As elsewhere in the world and particularly on the US platforms Kickstarter and Indiegogo, reward-based crowdfunding provides entrepreneurs with the opportunity to raise funds through small amounts of money donated by lots of people across the globe in exchange for rewards or "perks" from the venture. This is the primary feature that a crowdfunding platform offers: the capacity to collect small amounts from lots of people. Collectively, the small amounts add up to a significant amount.

Moreover, crowdfunding platforms also include share functions that link to social media platforms like Facebook and Twitter, meaning that crowdfunding investors and other interested parties can promote a start-up trying to obtain crowdfunding through these mediums. The effect of this social media marketing is to promote the venture, make people aware of both its existence and its crowdfunding campaign, and potentially attract future customers. Among large crowdfunding sites, like Kickstarter and Indiegogo, just being on the site provides a start-up with significant exposure because of the traffic these sites receive on a regular basis.

Unlike with reward-based crowdfunding, there are few international examples of equity crowdfunding. This may have contributed to a lack of certainty around the features and affordances that equity crowdfunding presents. As we discuss later, this uncertainty has given the platform providers, as institutional entrepreneurs, a chance to frame the narrative around equity crowdfunding in a way that makes it consistent with existing institutional logics and thus more appealing to entrepreneurs, among them ICT entrepreneurs, in Sweden.

5.2.1. Reward and donation-based: ICT entrepreneurs in Sweden view the fundraising feature as the cornerstone of crowdfunding in general. However, they did not see fundraising through a Swedish crowdfunding site as affording them enough money to run their venture for any significant amount of time, especially given the amount of time and money running a campaign was likely to cost. This perception was based on two observations. Firstly, there is the perception that Sweden is just too small to afford access to a significant crowd and thus a significant amount of money. The second perception is that there are cultural norms that discourage Swedes from investing. Some suggested that this was because Swedes pay high taxes on investments, others expected the Swedish government to invest, and others suggested this was just a Swedish value.

Thus, although ICT entrepreneurs were enthusiastic about fundraising through crowdfunding

on an international platform, they did not think that significant amounts of money could be raised using the Swedish equivalents:

"The reason why we haven't considered it? Kickstarter isn't open to foreign companies and it's more for projects that wouldn't get funding otherwise and also needs the big crowd to realize their projects. We don't really feel like we are that kind of company. And FundedByMe is a little bit too small still in Sweden. So we feel that we couldn't raise capital through them." (Entrepreneur #13)

In respect of the marketing potential of crowdfunding on a Swedish platform, entrepreneurs talked about gaining "ambassadors" in quite abstract terms, saying that ambassadors would be useful for any startup, but were unsure whether Swedish crowdfunding platforms had the reach or web traffic to attract a significant number of followers. One entrepreneur, who had actually used crowdfunding, said that Swedes seemed to treat publicizing their crowdfunding investments as "boasting", which is not considered a positive trait in Sweden, and thus they did not publicize their investments:

"I think that people are a bit self-conscious, it feels like they're bragging or something. Because in a way funding a project is a bit like buying a new handbag, it's just a different demographic. And I wouldn't post a picture saying 'look at my handbag it's so damn nice'." (Entrepreneur #2)

The entrepreneur also added that their experience of crowdfunding in Sweden was that the platform did not attract much traffic so it was up to the venture, through social media and other avenues, to attract ambassadors and potential funders.

Finally, although there is the potential for an interested party to contact an entrepreneur through a crowdfunding platform, it was not clear that this had happened. The crowdfunding platform providers expressly said that they wanted funders and entrepreneurs to communicate through the platform. However, entrepreneurs did not see skills, experience or a business network as an affordance of crowdfunding, with some saying that these additional skills were the reason that they opted for the investor that they did, and that they had not considered crowdfunding because it did not have this affordance, among others. The funders with whom we spoke echoed this, saying that they did not offer the projects they had funded their assistance. They merely invested in the venture and waited for their "perk" and followed up only when the perk was late and not to see how the venture was doing.

Thus, although ICT entrepreneurs appreciated the platform features, namely the possibility to pitch an idea to a large crowd, raise funds and potentially publicity, they did not see the Swedish reward-based platform as sufficiently affording start-up funding consistent with their logics.

The constraints that led to the perception of these affordances lay chiefly in the institutional logic around what an investor had to offer but also reflects Swedish cognitive barriers.

5.2.3. Equity-based: ICT entrepreneurs were less certain about the exact features of equity crowdfunding – or what the phenomenon's affordances were. There was widespread understanding that equity-based crowdfunding entailed selling a portion of equity in a venture, but few were certain about the mechanisms for doing it:

"What I have a harder time seeing is the equity-based, when you basically go out to people with any investment experience, without any knowledge of how to rank or value the startup, and you ask them [to fund you]." (Entrepreneur #12)

Some entrepreneurs likened it to offline forms of equity investment, in which few investors invest large amounts of money, while others likened it to other forms of crowdfunding in which numerous small investors invested in a venture.

From this uncertainty stemmed apprehension around the affordances of this form of crowdfunding. One entrepreneur indicated that the perception that Sweden's market was too small applied as much to equity as it did to other forms of crowdfunding. This uncertainty was reflected by one business coach who said that there was little value in lots of small investors because they were hard to organize – and that the crowdfunding platforms would have to attract large investors in order for equity crowdfunding to gain traction in Sweden:

"...it's more the risk of getting an ownership structure where you have many small owners, that is not, that has not historically been positively viewed for example from venture capital investors. They are really hesitant to invest in companies with a lot of small owners. So that has been the main, you know, argument for not recommending that path." (Institutional Actor #1)

5.3. Crowdfunding Platform Providers as Institutional Entrepreneurs

As actors who not only initiated divergent change in logics around investment in Sweden but also participated in the implementation of the change, this paper treats the two crowdfunding platform providers currently active in Sweden as institutional entrepreneurs. As both the developers of the crowdfunding platform, as well as entrepreneurs in their own right, with an interest in crowdfunding

being adopted, they have attempted to ascertain and later influence institutional logics through an evolving narrative. This narrative and the interplay between it and existing institutional logics have on it, are analyzed with reference to their blogs and interviews conducted with the crowdfunding platforms.

The first platform to launch in Sweden, FundedByMe, has largely dominated the narrative around how crowdfunding fits in with existing institutional logics around where entrepreneurs seek funding. The initial narrative from FundedByMe was that they modelled themselves on Kickstarter during the early days of reward- and donation-based crowdfunding. Indeed, even the website was similar to the Kickstarter site in that it visually emphasized two things: the pitch video made by the entrepreneur and a bar that tracks how much money the project has raised. The focus of the Frequently Asked Questions (FAQs) is also on raising money and there is little advice on how to persuade backers to support a project in any way other than financially.

Thus, the initial narrative from the platform provider was that crowdfunding afforded a *substitute* for other sources of funding. Marketing, according to an early crowdfunding provider blog post, was used to draw funders to the platform and encourage new customers. At this stage there was little talk of funders as "ambassadors".

The first mention of an ambassador is in a September 2011 post on FundedByMe's blog, in Swedish. The emphasis on ambassadors and testing the market began to appear in the crowdfunding narrative around the time of an early crowdfunding success story called *Flippin' Burgers*. The entrepreneur, who wanted to start a hamburger restaurant, raised a mere 36 000 SEK (5 600 USD) from 189 backers, but he used the crowdfunding campaign as evidence of the market for his product. He then used this evidence to persuade a bank to give him a loan – with which he started his restaurant, which is still in business today.

At this stage no project had raised over SEK 100 000 (USD 16 000). The entrepreneurs we interviewed were firmly of the belief that there was not enough money to be raised through crowdfunding in Sweden but considered doing it because of the benefits of ambassadors and the market validation it afforded.

We submit that part of the reason that FundedByMe was having limited success in crowdfunding at this stage, particularly among ICT entrepreneurs, was because their platform did not conform to the institutional logics held by entrepreneurs around what an investor should offer.

Not only was there no evidence of skills or experience being offered but very little money was being raised on the platforms.

In November 2012 FundedByMe launched its equity crowdfunding site. They described the launch – and shift in emphasis – as a "pivot", a word widely used to acknowledge that the earlier venture has had limited success. Around this time they increasingly shifted the emphasis of their narrative around and reward-based crowdfunding to the market validation that crowdfunding could provide. In this way crowdfunding could be seen as a *complement* to other investors and investments, wherein entrepreneurs could use their crowdfunding campaign, even if they did not raise much money, as evidence of market appeal, as *Flippin' Burgers* had done.

The narrative around equity crowdfunding has expanded on this. There are currently three equity crowdfunding platforms in Sweden. One platform has positioned equity crowdfunding as equity investment for ordinary people. For entrepreneurs, they suggest that the value in crowdfunding still lies in the market validation that crowdfunding provides, with a large number of ordinary people purchasing equity in a venture. The narrative directed at the entrepreneurs is that the benefit of crowdfunding lies in things other than the money – in ambassadors and market validation – with any money made a mere silver lining. They say that the quality a successful crowdfunding campaign signals can be used to show other investors, like banks or VCs, that the venture has a market for its product or service:

"We don't see crowdfunding as something which is going to be taking over the VC market. We see that as a filter for them instead. What we mean by filter, is the fact that VC companies and angels receive a lot of information to their desks every single day… they [a project] already have something which is online, they [investors] can go check it out and then maybe set up a meeting after that." (Platform #2)

Another equity platform that recently entered the Swedish market, CrowdCube, promotes similar features on its platform. They emphasize market validation as part of the early stages of crowdfunding and anticipate attracting professional investors to invest through the platform. In so doing, they see crowdfunding not as a new, technology-enabled form of funding by friends and family but as a technology-enabled form of funding by existing profession equity investors like venture capitalists and angel investors.

Indeed, they see equity crowdfunding, at least on their platform, as being a way to attract professional investors, with all that they bring to the table:

[So you are seeing business angels with large amounts coming in and investing through

crowdfunding platforms?] "Yes, you have innovative and early stage Business Angels who ... want to invest 1 million in an early stage of this company, but [say] 'if I do this, I want also to have a position at the table', to have influence in the company." (Platform #1)

6. Discussion and Conclusions

It is unclear whether funding for projects in Sweden was initially low because of a lack of quality projects to fund or because funders were not inclined to fund. It is clear, however, that reward-based crowdfunding in Sweden did not take off among ICT entrepreneurs as platform providers hoped it might – and crowdfunding was not seen as a financially rewarding endeavor by entrepreneurs

FundedByMe initially tried to become "taken for granted" as a source of finance through disrupting the existing institutional logic around investment, by offering entrepreneurs the possibility of a *substitute* source of funding which brought with it both ambassadors and independence. However, this created tension between the platforms and existing institutional logics, which suggested to entrepreneurs that the best investors provided not just funding but other soft skills and elements of a partnership.

Although the narrative from FundedByMe sought to exclude other investors, who might demand profit shares and voting rights, this substitute form of funding was not seen as credible. While the affordances of ambassadors and their role in market validation was perceived, entrepreneurs saw little value in them as an investment tool.

In response to this, FundedByMe's narrative around the features of the reward-based platform evolved. It increasingly emphasized ambassadors and market validation as its features. It abandoned its attempts to disrupt existing institutional logics in favor of offering a service with different, *complementary,* aims. In so doing they have changed the focus of their narrative, moving away from crowdfunding as a form of funding towards crowdfunding as a quality control or market validation service, thereby avoiding having to confront existing institutional logics.

Although equity crowdfunding is still emerging in Sweden, the main narrative coming from the equity platforms has had the same emphasis. Equity crowdfunding in Sweden has been more lucrative than reward-based crowdfunding, however, platforms have not tried to challenge institutional logics around what an entrepreneur looks for in an investor. Instead, they have also emphasized crowdfunding features as being *complementary* to the search for a larger investor that will bring both money and soft skills to the table.

While the features of the crowdfunding platforms in Sweden are substantially similar to those elsewhere in the world, the affordances they provide were shaped by both existing institutional logics and cognitive norms. ICT entrepreneurs perceived crowdfunding investors as unable to provide them with either the soft skills or partner that another investor might. In response, the crowdfunding platform providers evolved their narrative; they began to emphasize crowdfunding as a market validation service – one that would attract the same traditional investors that complied with existing institutional logics, but with which they still had an active role in the funding ecosystem in Sweden.

Thus, we see that there was tension between the prevailing institutional logics around what affordances an investor should have, namely money, soft skills and partnership and what entrepreneurs saw crowdfunding platforms as affording. Although the crowdfunding platforms initially tried to convince entrepreneurs that funding alone constituted a viable investment, the institutional logics were too entrenched and entrepreneurs did not respond well.

Since then, crowdfunding platform providers have framed themselves as a *complement* to traditional investors, evolving the narrative around their own features in the process. It is unclear the extent to which this evolving narrative has affected ICT entrepreneurs' desire to use the platform, but the espoused features are more consistent with existing institutional logics and thus not rejected outright, as the earlier narrative was.

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Appendix One: Coding Scheme and Quotations

Example of a quotation	Examples of sub-codes	Primary code
We borrowed 400 000 SEK from Almi, that's an innovation loan, that has then been extended with another 600 000 SEK so we have a 1 million SEK load from Almi. And then the two business angels have put in about roughly around 3.5 million each. (Entrepreneur #8)	Seed round / Wants to scale up / We raised … SEK	Institutional logic: Investor brings money
So, like, we are three, so it is me and Emil [Angel investor] and Phillipa, the second Angel investor, but like they are very hands on, Emil is very good at applying to all the funds and competitions. (Entrepreneur #3)	Investor joined team / Investor's network / Validation due to investor	Institutional logic: Investor brings skills
The company has grown on sales and also a bit on grants actually from government authorities like Vinnova and Tillverkstad, who have been extremely helpful when we were in the early stage. (Entrepreneur #13)	Investor joined team / Wanted independence so didn't seek investment	Institutional logic: Investor a partnership
The biggest problem we have in Sweden is the fact that people are more of intrapreneurs than entrepreneurs –they tend to keep things for themselves and don't want to talk about it. (Platform #2)	No culture of investment / Country too small / Swedes don't like to share ideas	Constraints on affordances
Using the social media and Internet you can reach out and democratise the Venture Capital industry, so you dont need to come to Stockholm ,,, you can sit there, be your own dragon on your sofa and make an investment of 1000 crowns in this specific venture (Platform #1)	Raise money / Equity / Start-up capital	Feature: Crowdfunding for money
What happens, I follow the project and of course I want to see it succeed so I do market that and help market it and help get other people to crowdfund it – they depend on it. (Repeat Funder #1)	Ambassadors / Build a community / Not just family and friends	Feature: Ambassadors
Through being able to convince a crowd and getting a crowd that doesn't exist he could take a client base back to the bank and said "hey here is my proof of concept, give me a chance". And what happened is with that money he could actually get an expensive loan. (Platform #2)	Market validation / Proof of concept / Early customers	Feature: Market Validation
And then we could just, like, oh guys now we're on FundedByMe so just people could give 100 SEK or more and people gave like 10 000 SEK. (Entrepreneur #2)	Start-up capital / Equity / Attract big investors	Affordance: Crowdfunding for money
Hopefully, I mean, it can play an even bigger role, not just attracting attention and ambassadors, which of course is really important in the beginning, but also that it financially it can play an even bigger part than it does today. (Entrepreneur #8)	Personal connection to project / Ambassadors	Affordance: Ambassadors
People feel good and they want to share that they participated but they also want to share the idea. So I think it has got a good wider opportunity even before the product exists, you can get people to talk about it. (Entrepreneur #4)	Market validation / Show consumer base / Exposure	Affordance: Market Validation
So its venture capital for all, for entrepreneurs and for all people who want to come in and support these kind of ideas and also make some small money. (Platform #1)	"Be your own VC" / Everyday investor	Narrative: challenge institutional logics
We have 34000 investors and 3 500 of them have made investments, and some have made 90 investment investments and have spent millions, they've embraced the business model and also are active on the site. (Platform #1)	VCs and Angels main focus / Traditional investors bring skills too	Narrative: conform to institutional logics
We don't see crowdfunding as something which is going to be taking over the VC market. We see it as a filter for them (VCs) instead. (Platform #2)	Crowdfunding as a filter / Attract big VCs/Angels / Market validation	Narrative: outside of institutional logics