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# The evolution and adoption of equity crowdfunding: entrepreneur and investor entry into a new market

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**Abstract** Equity crowdfunding (ECF) offers entrepreneurs an online social media marketplace where they can access numerous potential investors who, in exchange for an ownership stake, may supply them with finance. In this paper, we describe the evolution of this market in the UK. Using an inductive qualitative longitudinal research design, we analyse the emerging views of entrepreneurs and investors towards ECF. Our interviewees include large and small-scale investors, as well as market participants who have chosen not to invest or raise funds via ECF. We find that the large financial flows to entrepreneurs in the UK via the ECF platforms, nearly half a billion GBP since 2011, have probably been largely incremental to traditional sources of early stage entrepreneurial finance. Moreover, our research indicates that for the most part, investors appear to understand and appropriately evaluate the risks that they are bearing; ECF investments are perceived as a high risk, high return component within individuals' portfolios. Investors also use their communication with peers and entrepreneurs via the ECF platform as a learning tool. On the entrepreneurs' side, ECF allows them to test their products, to develop their brand, to build a loyal customer base and to turn customers into investors. We conclude that policymakers, with the support of a locally appropriate regulatory framework, could support equity crowdfunding as one of the market choices available for entrepreneurs looking to start or grow their ventures.

**Keywords** Entrepreneurship · Equity crowdfunding · Early stage entrepreneurial finance · Regulation · Investor choices

**JEL classifications** G3 · G21 · L26 · M21

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## 1 Introduction

The literature has long identified the role of entrepreneurship in enhancing innovation, economic growth and creating jobs (Schumpeter 1934; Carree and Thurik 2003; Baumol and Strom 2007; Braunerhjelm et al.

2010). However, the exploitation of this potential has been limited by deficiencies in the market for early stage entrepreneurial finance (Denis 2004; Estrin and Khavul 2016a). The finance literature details how asymmetries of information between entrepreneurs and investors often prevent new ventures from raising capital (Jensen and Meckling 1976; Stiglitz and Weiss 1981; Gompers 1995). This is because the transaction costs of collecting accurate information are high, the results are unpredictable and true risks unfold over time, usually after the investment is made (Manigart and Wright 2013). Therefore, entrepreneurs find it hard to identify and attract investors through the standard market channels (Gompers and Lerner 2011). Instead, entrepreneurs have traditionally financed their new ventures in steps or "stepping stones" (Hellman et al. 2013), often starting with personal savings, investments from friends and family and seeking support from angel investors before turning to venture capital (VC), banks or equity markets (Cosh et al. 2009). Recently, entrepreneurs have also begun to use equity crowdfunding (ECF), an innovation in the early stage entrepreneurial finance space, which uses the power of social media to provide a new channel linking investors with entrepreneurs (Estrin and Khavul 2016b).

In this paper, we bring together quantitative and qualitative data to address ECF growth and evolution through the experiences of entrepreneurs and investors engaged in equity crowdfunding. The combination gives us a unique perspective into the microfoundations of the crowdfunding industry from its inception. Though many other countries, including much of the European Union, have permitted ECF platforms to operate since 2010 (Kshetri 2015), we anchor our study in the largest ECF marketplace, which is currently in the UK. Large financial flows have been generated for entrepreneurs in the UK via the ECF platforms, nearly £450 m since 2011; Nesta (2016) estimate that, by 2016, ECF supplied more than 15% of UK early stage finance. Important contributory factors to this success include the depth of the UK entrepreneurial finance ecosystem, the emergence of light-touch regulatory regime and a sympathetic tax system (Estrin et al. 2016; Estrin and Khavul 2016a, b; Drover et al. 2017).

We first briefly quantify the evolution of the British ECF market, with data available in the Online Resource 1, and then employ qualitative methods to outline differentiated views of ECF. Our analysis is based on 64 structured interviews between 2014 and 2017 and supported by 400 quotes in the Online Resource 2 of the paper. Two research questions guide our work.

Our first research question (*RQ1*) *asks*, *whether the significant financial flows* via *ECF platforms are incremental to existing funding sources for entrepreneurs*. That is, is ECF attracting new money to the early stage entrepreneurial finance sector or are investments in ECF merely a diversion of existing investor funds from more traditional channels, such as angel investing or venture capital. We then ask (*RQ2*), *do investors understand and appropriately evaluate the risks that they are bearing by investing in this new form of equity asset?* In asking this question, we try to address a critique that ECF brings large numbers of ill-informed and inexperienced investors into the market (Agrawal et al. 2013; Belleflame et al. 2014). As we have noted, early stage investing is highly risky, yet it is unclear whether the crowd understands or can mitigate these risks (Ahlers et al. 2015; Courtney et al. 2017). Indeed, such reasoning lies behind the caution of many policymakers towards ECF (Estrin et al. 2016; Hornuf and Schwienbacher 2016).

Our quantitative research charts the rapid growth, maturation and market deepening of the UK ECF sector since its founding in 2010. In complement, the qualitative data suggest that the sector is attracting not only new investors interested in participating in entrepreneurial ventures but also new funding that is additive rather than a diversion from other flows in the entrepreneurial ecosystem. Moreover, although some investors engage in a little wishful thinking about returns to ECF, most realistically evaluate the asset class as risky and a long-term investment. Further, we see that entrepreneurs have mixed motives for pursing ECF as a source of financing: for some it is a strictly financial exchange, while for others it is part of their marketing strategy. We conclude our paper with a series of policy recommendations that emphasise the opportunity ECF offered regulators to take a policy-driven rather a rule-driven approach to co-creating with users an environment for experimenting with financial innovations.

## 2 Empirical context: the evolution of equity crowdfunding in the UK

### 2.1 Regulatory and tax environment in the UK

Equity crowdfunding is an international phenomenon (Kshetri 2015; Massolution 2015, Terry et al. 2015) and,

albeit to varying degrees, a regulated activity.[1] Regulators in each jurisdiction are concerned primarily with the protection of investors who, it is argued, do not have the expertise to evaluate the riskiness of these investments. Regulators have responded in many ways, including by limiting the types of investors and methods of solicitation available to ECF platforms, the amount investors can invest or the investments sought.

Overall, the UK Regulator has adopted a sympathetic approach to fintechs in general and its approach to ECF is one example. The FCA required investors to self-certify that they understood the risks and made no restrictions on the type of investors to which the platform could market (FCA 2014). Consumer protection has been interpreted in terms of informing investors of potential losses with the responsibility for providing this information placed on the platform. This contrasts with most other jurisdictions in which there were greater restrictions on investors often including external validation of certification (Cumming and Zhang 2016; Dushnitsky et al. 2016). Thus, in its approach to ECF, the UK Regulator, in contrast to the focus on prescriptive rules of some of continental Europe and the USA, has adopted a flexible "principles-based" approach in which regulatory policy evolved in collaboration with innovators and users (Estrin et al. 2016) UK policymakers have also supported ECF via two tax incentives. The Enterprise Investment Scheme (EIS) helps entrepreneurs to raise finance by offering tax relief to investors and the Seed Enterprise Investment Scheme (SEIS) offers tax relief to individual investors who purchase new shares in new companies. These policies have probably also helped the rapid expansion of ECF in the UK (Vulkan et al. 2016).

## 2.2 The evolution of the UK equity crowdfunding sector

The number of platforms in the UK equity crowdfunding market has increased from four in 2010 to thirteen in June 2017, though the sector is very concentrated; we estimate the top three platforms account for around 95% of the market in 2016.[2] We provide detailed information about the nature and scope of the sector in the Online Resource 1. By June 2017, the platforms had supplied equity funds of almost £500 million for 1538 entrepreneurial pitches, drawing on more than 400,000 registered potential investors. Given that only around one third of pitches are funded, and the ECF platforms screen out perhaps 90% of initial enquiries, one can estimate that around 45,000 entrepreneurs and their ventures in the UK have sought capital via ECF in the past six years.

In contrast to other forms of crowdfunding (Mollick 2014), the average number of investors in each successful ECF pitch is relatively small. Table A.1 (Online Resource 1) shows that there are between 200 and 250 investors per successful pitch on average, and the average amount invested per investor is around £2000.[3] Entrepreneurs using ECF seek only modest funding from around £110,000 to almost £2 million.

The rapid growth of the sector is shown by the number of investors engaged in one or more platforms. As with other forms of social network, growth of the network is impressive. For example, the size of the investor network on Crowdcube increased exponentially from around 10,000 at the start of 2012 to 30,000 at the start of 2013; 50,000 at the start of 2014; more than 100,000 at the start of 2015; more than 200,000 at the start of 2016 and more than 400,000 by June 2017.[4]

In Table 1, we report the equity raised by the three leading platforms, Crowdcube, Seedrs and Syndicate Room, since 2011. As noted, increasing funds are being raised in total and also for each entrepreneur: the average investment per pitch has increased from £99,000 in 2012; £243,000 in 2013; £357,000 in 2014; £508,000 in 2015 to £551,000 in 2016. Appendix in the Online Resource 1 further provides evidence of the deepening of the investor network over time. We show that the early entrepreneurial pitches were concentrated in London, but that the rapid increase in deal flow has brought a widening of the geographical base, with entrepreneurs from all over the country seeking investors through this channel by 2016 (Fig. A.1). We also illustrate the remarkable expansion in the depth of the social network, greatly enhancing the possibilities for network externalities (Evans and Schmalensee 2016). While in

[1] The US Jobs Act came into force in 2016 and EU countries have implemented regulations nationally since 2011 within limits set by EU legislation. In the UK, the Regulator initially adapted existing regulations to allow equity crowdfunding and then introduced formal rules in 2014.

[2] Source: www.beauhurst.com.

[3] This contrasts with other forms of crowdfunding (donation and reward) which also draw on a large social network, but where each participant typically only provides small sums (Mollick 2014).

[4] Though precise data are not available, interviews suggest that the other major platforms have seen similar growth rates (Estrin and Khavul 2016b; Vulkan et al. 2016).

**Table 1** Equity crowdfunding; amounts raised by year in principal platforms in millions of GBP

| Year | Crowdcube | Seedrs | Syndicate Room | Total |
|---|---|---|---|---|
| 2011 | 2.48 | | | 2.48 |
| 2012 | 1.98 | 0.33 | | 2.31 |
| 2013 | 10.72 | 8.26 | 0.76 | 19.73 |
| 2014 | 33.91 | 20.48 | 15.86 | 70.24 |
| 2015 | 73.20 | 33.70 | 23.88 | 130.78 |
| 2016 | 65.02 | 71.10 | 20.59 | 156.72 |
| 2017[a] | 31.29 | 14.59 | 17.85 | 63.73 |
| Total | 218.59 | 148.46 | 78.93 | 445.99 |

[a] 2017 data covers first five months for Crowdcube, first quarter for Seedrs and first two quarters for Syndicate Room. +Seedrs data is self-reported by fundraising firms

the early years of ECF, investors joined platforms primarily to invest in a particular pitch, perhaps friends and family or investors concerned with a particular sector or location, the network has now become far more integrated. Hence, it is linking investors and entrepreneurs who joined for one purpose, but have since been enticed to engage with other projects (Fig. A.2). However, the data on growth and marketing maturation do not by themselves establish that the supply of funds to the market is incremental. We return to this issue in our interviews below.

Our dataset also allows us to provide some of the first evidence concerning risks and returns on ECF platforms. As yet, few successful exits can be identified and Table A.3 shows that failure rates average about 8% per annum and above 30% over a five-year horizon,[5] which is high but below the norm for early stage entrepreneurial firms (Ucbasaran et al. 2010). Thus, while the risks associated with ECF are high compared with other asset classes, they are not extravagant when compared with other forms of investment into entrepreneurial ventures.

## 3 Theoretical considerations

We next outline the theoretical considerations that affect how entrepreneurs and investors engage with each other in an equity crowdfunding environment. ECF platforms provide entrepreneurs and investors access to a two-sided online social media marketplace (Evans and Schmalensee 2016), where they can trade equity finance for ownership stakes (Cumming and Zhang 2016; Rossi and Vismara 2017). The platform is the market-maker, regulated by the relevant financial services authority, and each offering of shares by entrepreneurs is denoted a *pitch*. Social networks allow new markets to emerge, because they drastically reduce the transactions costs of market engagement (Estrin and Khavul 2016a). There is a rapidly burgeoning literature about ECG, focused on social networks (Vismara 2016); pricing and regulation (Hornuf and Schwienbacher 2016; Hornuf and Neuenkirch 2017) and distance effects (Guenther et al. 2017; Mohammadi and Shafi 2017).

This literature has proposed three mechanisms whereby equity crowdfunding might be able to improve the matching between investors and entrepreneurs (Estrin and Khavul 2016a; Polzin et al. 2017). First, there is a priori information provided by the entrepreneur as part of the pitch process, which is freely available to all potential investors. This includes a valuation of business and financial information about the company, including data about themselves, their business experience and their business idea. Entrepreneurs often provide a video of themselves outlining their pitch to potential investors. These messages are provided within a standard format, and the investor has the knowledge that the proposal has been screened by experts within the platform to weed out weaker investment proposals.[6] The open access characteristics of the platform provide entrepreneurs with an interesting balancing act between revealing enough and too much to the public at large (McKenny et al. 2017). Second, information flows are generated through the *dynamics of the pitch process.* The platform pools together the knowledge of a network of investors with skills and experience about particular sectors, technologies and financing arrangements (Estrin and Khavul 2016a). From its opening, potential investors are invited to comment on any and every aspect of the pitch—the valuation, the product, the business plan, the market, the entrepreneur and the management team, financial forecasts and the entire business model (Ahlers et al. 2015). The investor

[5] The failure rate is based on year of receiving funding rather than year of being founded. These should not be confused with survival rates. Moreover, it is notoriously difficult to capture true rates of failure as many firms could be struggling or dormant before they are observed as having failed. Examining each and every firm for its operating status was beyond the scope of our research.

[6] In one UK platform, only around 10% of entrepreneurs' proposals survive the screening process. The proportion is reported verbally to be similar in other platforms.

network is an informed group, which includes people who are entrepreneurs themselves, as well as potential consumers, specialists in finance and marketing and business angels (Vismara 2016). The ECF platforms are structured to facilitate the posting of comments from investors and responses from entrepreneurs, in an accessible and easy to manipulate format (Dushnitsky et al. 2016).

Finally, network participants can watch the investment decisions of other investors, potentially creating information cascades (Vismara 2017). Investors reveal to others on the network their willingness to pay for equity in the business by publicly pledging sums towards the target (Estrin and Khavul 2016a). The network is informed about the amount invested and the timing of the investment (early in the process, late, in a large single sum or in a number of smaller amounts). This may encourage others to invest, in the knowledge that some investors have already taken the plunge (Cumming et al. 2014).

## 4 Methodology for the qualitative study

### 4.1 Data sampling and collection

Focusing on a relatively recent phenomenon, our study is qualitative and inductive in design. We follow the tradition of discovering new knowledge by generating thematically underpinned concepts and ideas (Gioia and Pitre 1990; Gioia et al. 2012). To investigate our research questions, we need to explore the views and attitudes of actors involved in ECF. We use a multiple (Yin 2009) or collective (Stake 2013) case method. This approach is appropriate where investigators are exploring a phenomenon, such as ECF, which has novelty and where related scholarly literature is sparse (Ordanini et al. 2011).[7] It also allows for inductive building of theory and provides rich empirical descriptions of the phenomena under consideration (Eisenhardt 1989).

We used "purposive sampling" to select participants. Adoption of a typical case purposive sampling strategy required a search for information-rich cases illustrative of ECF (Patton 1990). Consequently, we interviewed a range of entrepreneurs, as well as new and experienced investors, who either engaged or chose not to invest through ECF platforms (Pettigrew 1990; Golden 1992). Primary data were collected through semi-structured interviews. This technique allows flexibility to explore new topics while ensuring important issues remain covered (Kvale and Brinkmann 2009). The researcher must frame what is important in understanding the behaviours, events and patterns related to the research topic (Bryman 2008). Pilot interviews were initially conducted to ensure the questions were clear and followed a logical flow, leading to some minor changes. Secondary data sources included research publications from ECF websites, regulatory authorities, business angel associations and press reports.[8] These resources aided the refinement of questions and provided context for interpreting responses. In total, 64 semi-structured interviews were conducted between 2014 and 2017; the longitudinal method was used, because the study explored interconnections between the context, content and processes of change over time (Pettigrew 1990; Symon and Cassell 2012).

### 4.2 Data analysis and validation

We followed the "Gioia Methodology" designed to enhance "qualitative rigour" by deriving first-order, second-order and aggregate concepts (Gioia et al. 2012) to analyse the qualitative data. A common challenge is that qualitative studies create voluminous and varied data sets which are "disordered" and difficult to systematise (Punch 2005). The application of Gioia's systematic approach to data analysis brings structure and "qualitative rigour" to the development and presentation of research findings. During this process, primary data from interviews were closely reviewed to determine points of importance, common themes were then identified and categories assigned (Punch 2005).[9]

We organised our interviews into a series of key themes, assigned descriptive codes to text passages that indicated these issues: one each for entrepreneurs and for investors. A consolidation yielded initial schemes allowing rigorous comparison of topics across data sources. We then iterated further between data points to capture the most empirically grounded and

[7] Other studies of platforms and innovation (Gawer and Phillips 2013; Klingebiel and Joseph 2016) have employed similar coding methods.

[8] We therefore conducted additional interviews with a broad cross section of people associated with the sector; working for the platforms, regulators, and policymakers (Estrin et al. 2016).

[9] Interviews were transcribed, analysed and shared electronically; such approaches have been usefully employed in studies of similar phenomenon including microfinancing (Bruton et al. 2011; Khavul et al. 2013).

theoretically interesting issues highlighted in the views of entrepreneurs and investors respectively. This process yielded the two data structures presented in Figs. 1 and 2. The first (Fig. 1), for investors, contained three second-order themes further divided into 28 first-order categories, while the second (Fig.2), for entrepreneurs, also contained three first-order themes, but subdivided into 20 first-order categories. Each interview was assigned a unique identifier followed by the year the interview was conducted (e.g. I12.2017).[10] Our iterations between data points continued as we added new interview transcripts until "theoretical saturation" had been reached (Morse 1997).

External validity was constructed through investigation of multiple cases across different ECF platforms, thereby allowing "literal replication" across cases (Yin 2009; Stake 2013). The multi-case research design also allowed for internal validity by allowing close inspection of the context and causes of changes in ECF practices (Leonard-Barton 1990). Internal validity was further achieved by considering different empirical data sources. Scope, depth and consistency were ensured by discussing key concepts, constructs and terminology with each of the informants and triangulating the findings across data points (Flick 1998; Seale 1999). To summarise, the research design employed is inductive (Eisenhardt 1989) and so aims to build concepts that "capture the qualities that describe the phenomenon of theoretical interest (Gioia et al. 2012, p. 2).

## 5 Entrepreneur and investor motivations for use or avoidance of ECF

### 5.1 Entrepreneurs

This section outlines the results of 20 interviews (2015: 5 interviews, 2016: 15 interviews) conducted with entrepreneurs, who either have engaged or have consciously chosen not to engage with ECF. Empirical analysis of the aggregate dimension of *entrepreneurs' motivations for ECF adoption and avoidance* is supported by three second-order concepts: *reasons for bypassing institutional funding models* (four first-order categories); *reasons for using ECF for fundraising* (eight first-order categories); and *reasons for avoiding ECF for fundraising* (eight first-order categories). Each second-order concept is supported by a series of first-order categories, the total number of which is listed in parenthesis above. We draw from the concepts and aggregate dimensions, outlined in Fig. 1, to structure this section and Appendix B (Online Resource 2), which contains selected evidence regarding these interviews. It should be noted that the second-order concepts are supported by 60 representative quotes.

#### *5.1.1 Why did entrepreneurs bypass traditional institutions and moved to ECF?*

Why do entrepreneurs seek capital via ECF rather than through more traditional means? Entrepreneurs offered several reasons. In the aftermath of the financial crisis, there was a distinct lack of funds for early stage financing. In fact, potential investment funds were being held back: ("Simply put [ECF] makes it easier for the smaller enterprises to raise funds, the banks problems are that due to the costs being too high for them to enable them to contemplate smaller transactions."). Furthermore, though some seed money was available through angel investors in the UK, further capital for growth and funds for day-to-day liquidity were hard to obtain ("We went round everybody in the UK. We went to all of the VCs… that confirmed out experience… nothing—no interest whatsoever"), especially compared to the USA. Likewise, ECF presented entrepreneurs with a logistically viable ability to self-fund or to use an existing customer base to raise capital. ("We could see that there was a huge demand from our customers—there are three quarters of a million of them,—to own some of the business and to profit from our success"). This has the benefit of turning user-investors into more committed and vocal advocates of the firm. Raising funds in this way was described as being fundamentally "an easier sell" as existing customers were felt to understand the product and the company's vision.

In addition to their customer, ECF provided access to a large pool of platform investors and entrepreneurs indicated a preference for larger platforms ("It's an easy way to raise finance, it's quick, it's low hassle administratively and there are a lot of side benefits to it. You can get publicity just by crowdfunding and you can get lots of recognition"). Some entrepreneurs turned to ECF for purely commercial reasons, to raise funds quickly and cheaply, while others because they wanted to be inclusive. ECF platforms were also seen to offer effective and

[10] These are reported in the 'Representative Data' column in the Online Resource 2.

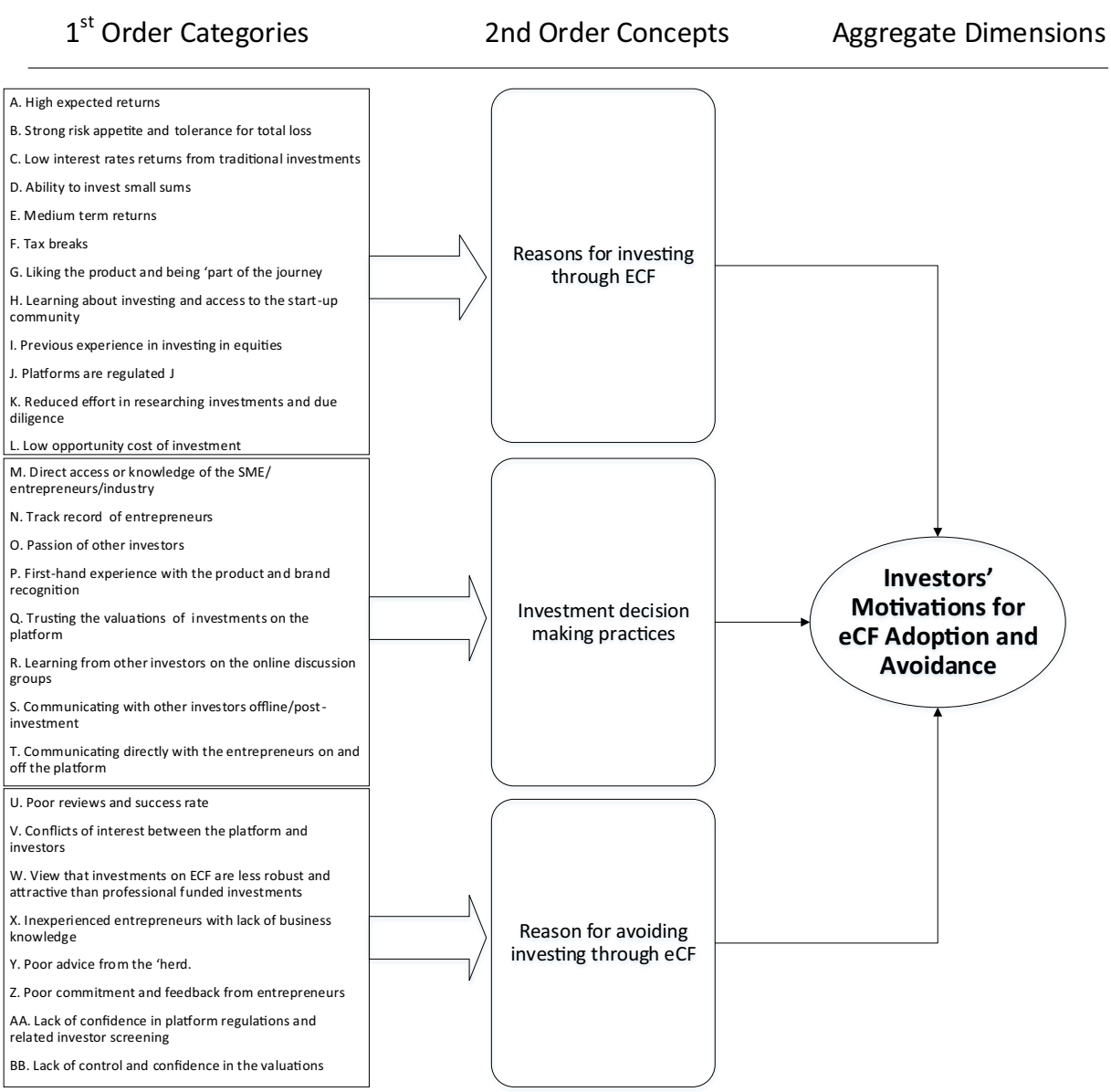


**Fig. 1** Entrepreneur data structure

speedy access to significant amounts of finance ("It was a commercial decision."). As we have seen, as the ECF platforms have matured, the investments that entrepreneurs can raise have increased. Interestingly, our interviewees cited that crowdfunding gave them access to capital without relinquishing the same levels of control as with venture capital.

The interviews also revealed important secondary reasons for entrepreneurs to engage with ECF; platforms allowed businesses to spread awareness of their products and services. One company had BBC articles written about them, when they raised a hundred percent of their target in just 24 h. Publicity seeking is identified as another motivation. Savvy entrepreneurs will aim to create "momentum and buzz" through marketing campaigns and so create excitement. Often, positive press regarding crowdfunding campaigns relates to how quickly a funding round has achieved the target level of capital. Entrepreneurs pursue several strategies to accomplish fast and successful raises, including

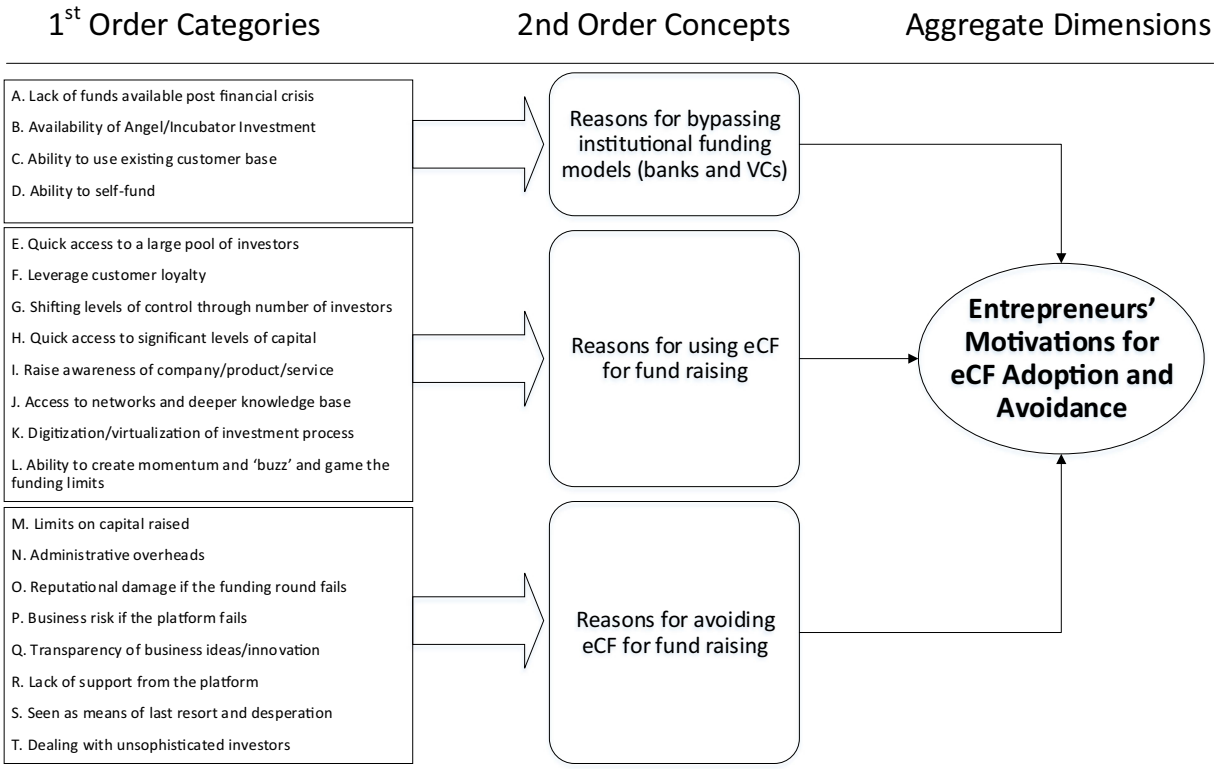


**Fig. 2** Investor data structure

recruiting investors early and presenting achievable minimum investment targets.

Finally, using ECF platforms to raise capital had an added secondary benefit for entrepreneurs. One felt that the digitisation and virtualisation of the investment process removes the need to physically attend numerous pitch events, but instead allowed virtual meetings and to upload pitch videos. A further secondary reason cited for adopting ECF is that a large network of investors may help entrepreneurs to find people with the necessary skill sets and knowledge base needed to grow the business.

### *5.1.2 Why do entrepreneurs avoid fundraising through ECF?*

Some entrepreneurs argue that, contrary to popular perception, the potential levels of capital available to entrepreneurs are low and the administrative overheads required. Some entrepreneurs suggested that a great deal of due diligence work was required by the platform and that this had increased over time, not least due to rising regulatory obligations. However, others felt that the administrative overheads were not large compared with other forms of investment though they agreed these had increased. Some entrepreneurs felt the platforms did not provide enough support in preparing due diligence, understanding the regulatory obligations and promoting the campaign. For example, one entrepreneur admitted that they had no understanding of the responsibilities placed on them regarding financial investment rules. Luckily, their campaign did not reach its target so no funds were received from investors.

Some of our interviewees raised concerns about transparency and the public nature of crowdfunding. Consistent with the theory, some entrepreneurs felt ECF came at an unacceptable risk should the campaign not reach its target. Traditional funding routes are undertaken behind closed doors and so, if an entrepreneur fails to raise funds, the outcome is not widely known. However, if an ECF pitch fails to reach its target, the failure is public. Other interviewees were not willing to place sensitive financial information in the public domain. Furthermore, some entrepreneurs were wary of the signal from using ECF: by going down the crowdfunding route they were publically signalling to future investors that they were a less robust and attractive business.

Interviewees also raised concerns about potential problems from having to deal with unsophisticated investors. They did not want to feel that they were responsible for managing other peoples' savings nor have to address a plethora of ill-informed questions. In contrast to the perspective held by some entrepreneurs that large networks of investors would help them access knowledge and skill sets, some interviewees felt that unsophisticated investors could add very little value as they knew little about the business environment. Other entrepreneurs felt the platforms were not regulated enough, that there were a lot of hidden risks, false projections and over-exuberance. One entrepreneur gave an example of an unsophisticated investor, who invested £500 and then rang their office to ask what he would get for his money. He was not worried about losing his money. He thought the company was great, but did not understand if it was a gift or an investment!

In summary, for entrepreneurs, ECF appears to have provided a new and for the most part attractive form of funding. The platforms offer many advantages: of low cost, ease and availability. They also provide some spillovers in the form of product and market testing and development. Nonetheless, there remains some suspicion of this innovation among entrepreneurs, notably concerning the additional risks generated by reliance on the crowd.

## 5.2 Investors

This section outlines the results of 44 interviews (2014: 3 interviews, 2015: 13 interviews, 2017: 28 interviews) conducted with investors, who have engaged or have consciously chosen not to engage with ECF. We divide our interviewees into two groups; investors whose engagement with ECF is relatively casual, termed "low value", and those who are investing more frequently and/or larger sums, termed "high value". As Fig. 2 shows, there are twenty eight first-order categories supporting three second-order concepts (a) *reasons for investing through ECF* (supported by twelve first-order categories and 200 representative quotes); (b) *investment decision-making practices* (supported by eight first-order categories and 78 representative quotes); and (c) *reasons for investing through ECF* (supported by eight first-order categories and 62 representative quotes). Selected evidence regarding these interviews and the related themes and concepts identified are available in Appendix C (Online Resource 2). The aggregate dimension, *Investors' motivations for ECF Adoption and Avoidance*, is supported by 340 representative quotes from investors.

### *5.2.1 Why do investors choose ECF?*

All the investors interviewed cited financial motivations as either the primary or a very important motivation for their engagement ("at the bottom line, it is financial"). Across the two investor groups, by far the most cited reason for investment was the potential for high returns. Most investors see their ECF investments in the context of a balanced asset portfolio, as an asset class which raised both the riskiness and the expected return. Most hoped to find a "golden unicorn" but recognised that such outstanding financial performance was likely to be extremely rare. The specific expectations of returns were rather varied, but usually high and often framed in venture capital terms, for example expectations of "3X to 5X" or "10X" ("I would say that 10 times is an acceptable return"), though combined with a realisation that many investments might fail. Most investors understood that they needed to make a number of investments in the knowledge that only one or a few might generate returns and the rest would probably fail.

Time horizons for anticipated returns were relatively long, ranging from "three to five years" to "five to ten years". Our interviewees all understood that losing their entire investment was possible. For example, "I understand the risk, I understand the upsides and downsides"; "My confidence in the investments are always very, very low"). There was also a strong appetite for risk, especially for high value investors ("You expect 7 out of 10 to fail, 1 to be going along nicely, and 2 to be quite good"). Indeed, some had previous experience investing in equities and start-up firms and several high value investors had been entrepreneurs themselves.

For the majority of the interviewees, both high and low value, ECF constituted a relatively minor part of their overall portfolio; few of the interviewees invested more than £15,000 in any single pitch. Thus, almost all the investors referred to their ECF investments as "small". In fact, one of the reasons often cited for engaging and investing with ECF platforms was the ability to invest small sums in risky projects. A further reason for investing through ECF platforms was the tax relief provided by the UK government, which was of universal importance to the high value investors.

Our interviews also revealed some important non-financial motivations for investors choosing to participate.[11] Many ECF investors enjoyed the vicarious benefits from engaging in ECF, for example stating, "it's nice to be part of a project" or wishing to "help young entrepreneurs". This was a quite common motivation in the interviews undertaken in 2014–2016, but perhaps rather less so in the more mature market of 2017, where financial returns were emphasised, and particularly so by the more high value investors. Some investors of both types revealed that "liking the product" was an important consideration; for example, because of personal interest in biotech, zero carbon food or beer. Thus, investors talked about being passionate about particular industries and wanting to support related innovations. Some of the interviewees cited medical and energy-saving innovations as examples. Others talked about feeling "part of the entrepreneurs' journey."

Other non-financial motivations for investing included using ECF as a way to learn about the investment process and as a way to access start-up communities, thereby helping the investor in the development of their own professional networks. Many interviewees also felt that regulation offered some level of guarantee that funds would be returned and also ensured a degree of oversight towards the platform.[12]

Some investors specifically noted the lower transactions costs in the process ("There's a transparency about it that you don't see necessarily in the traditional investment market") and commented on how investing through ECF platforms created less "friction". Our interviews therefore provide some support for the argument that the lower transactions costs of trading within ECF platforms allows matching between investors and entrepreneurs which was not possible previously. As a result, ECF may well be able to bring new financial resources to early stage entrepreneurial ventures. Relevant quotes include: "I would not have invested the funds at all if not through ECF"; "this has opened up opportunity to deploy money that I probably wouldn't have looked to invest otherwise"; "If I wouldn't have invested my money in this firm, I think I would've put it in bonds or fund".

### *5.2.2 How do investors make decisions when investing through ECF?*

Our data analysis also provides insights into the investment decision-making practices within ECF platforms. There was considerable variation in the amount of time that investors spent evaluating alternative pitches and making investment decisions. The platforms allowed individuals to invest without engaging in time consuming due diligence and lengthy research processes. Many high and low value participants suggested, they would only spend at the very most a couple of hours researching materials (valuations, pitch videos, etc.), but this depended on the sums being invested. Rather little time was typically spent for very modest investments, but the experience of the investor was also important. Typically, more experienced investors focused on the standard bundle of factors driving early stage venture investment: the entrepreneurial group, the concept and business model and the technology. The less experienced investors focused more on particular unidimensional factors, often related to the product or the entrepreneur.

Our interviews also reveal that ECF generates a learning process for the investor, who may start by responding to an advert or the desire to buy into the producers of their favourite beer, but who quickly get a taste for the investment process itself. Thus, by 2017, most interviewees had invested in between three and ten firms, and their reasoning related more to their portfolio than to the characteristics of any particular investment. Direct access and knowledge of the new ventures and entrepreneurs prior to the funding round were cited as important factors as was having previous working knowledge of the industry. Some of the investors had previously been customers of the firms and had used their products and services. This parallels the point above that some entrepreneurs have used ECF to leverage their customer base; first-hand experience of product and brand recognition were cited as important factors behind investment.

Investors also stressed their need to be convinced that the entrepreneurs understood the product and business environment. Correspondingly, they highlighted the need to review the experience and "track record" of the founders and whether they had run similar businesses successfully before. Acknowledging that "no one knows

[11] Some interviewees from 2014 to 16 also cited low interest rates as a motivational factor, but this issue was not cited in the 2017 interviews.

[12] However, a few 2017 interviews suggested some growing mistrust of the platforms, especially among high value investors. Some concerns were expressed about returns, valuations and governance. Conversely, several high value investors were not concerned about regulation, arguing that platforms would be regulated by the market.

everything," some investors also looked to see if inexperienced entrepreneurs had the awareness to know they did not understand some aspects of running a business and so were partnering with the right people or seeking help in appropriate places.

Communications among investors was also an important factor in the investment decision-making process, as was the ability to interact and communicate with the entrepreneurs. Thus, the majority of our interviewees highlighted the importance of learning from the expertise of other investors by engaging with the online discussion groups, facilitated by the platform ("A lot of the reason for investing I'd say was because of the lead investor"*)*. One investor described this as a big part of his due diligence process, observing other investors' analysis to see what they were thinking, and how they responded to different perspectives and investment rationalisations ("It's a form of self-improvement"; "lots of things people would ask, which I wouldn't—people with different areas of expertise."*)*. Some investors also described how they were keen to contact other investors "in similar situations" post-investment, seeing this as a good opportunity to develop their professional networks. The enthusiasm of the entrepreneurs and their willingness to engage in response to questions on the online forums was also seen a good indicator of their likelihood to remain engaged with the investor community post-funding ("Sound and solid responses increases the trust"). The ability to learn and communicate with both investors and entrepreneurs was therefore seen by many as motivational factor for investment.

#### *5.2.3 Why do investors avoid investing through ECF?*

We also interviewed some investors who were negative about ECF, either being unwilling to use it or unwilling to do so again. By 2017, a few investors had become disillusioned with the low success rate of ECF-funded ventures, perhaps initially underestimating the time horizon required while some others were worried, whether the platforms offered insufficient protection should the new venture become insolvent. High value investors in particular expressed frustration about the lack of regular updates and general quality of feedback to the investors.[13] A few more experienced investors were also critical of ECF suggesting that if the firm was not good enough to attract professional investment then it was too high risk. Furthermore, while some of the investors felt encouraged to follow the crowd, others felt that enthusiasm and exuberance regarding a product were poor indicators of asset quality.

In summary, our interviews suggest that the rapid expansion of ECF in the UK has gone hand in hand with the emergence of a large new enthusiastic investor pool, often interested in supplying relatively small tranches of capital (a few thousand pounds) to a variety of projects. To quote an investor: "yeah, definitely a new channel and … it gives you access to an area that wasn't available before". Many ECF investors interviewed were not previously investors in company equity at all, let alone private equity, and were attracted by the social network aspect of ECF, as well as the highly visible marketing campaigns for particular pitches through, for example, social media, advertisements on the London Underground and through the sales outlets of the firms seeking funding. This further supports the view that ECF has probably added significant new funding to the UK entrepreneurial capital market though further large scale quantitative analysis is required to establish this insight empirically.

## 6 Discussion and limitations

The ECF sector in the UK has grown very rapidly in the past six years, under the benign gaze of a "light-touch" regulatory regime. The ECF market has become larger, deeper and has matured considerably in this period. In light of the novel approach that ECF offers both entrepreneurs seeking equity funding and investors supplying capital, we return to our two research questions to deepen our understanding of the evolution of the sector.

First, (RQ1), are the significant financial flows via ECF platforms incremental to more traditional forms of funding for entrepreneurs or are they merely a diversion of previous flows via a new channel? Our analysis supports the view that the supply of equity capital for entrepreneurs via ECF is largely new, rather than diverted from other channels such as angel investment or venture capital. The evidence for this includes the extraordinarily rapid growth in the number of registered and participating investors as well as of the funds provided. The interviews indicate that many investors are

[13] Some suggested that this was due to entrepreneurs having nothing to report and therefore probably failing, while others suggested that they rarely heard anything back unless another funding round was imminent.

entirely new to this type of activity. Furthermore, for the most part, entrepreneurs appreciate this form of funding and view it as differentiated as well as additional to what was available to them previously. It is significant that entrepreneurs, even those who choose not to pursue it, see ECF as an alternative for raising capital. Given that ECF emerged as an alternative source of financing in time of crisis, it is notable that many entrepreneurs see ECF not so much in transactional terms as in relational ones. Moreover, entrepreneurs appear able to think critically about the possible limitations of raising financing in this way. The public nature of the financing round and the transparency that it enforces also changes the decision-making process of whether and when to pursue ECF with implications for how and where ECF can entrench itself on the landscape of entrepreneurial finance in the future.

Our second issue, RQ2, concerned whether investors understand and appropriately evaluate the risks that they are bearing by investing in this new form of equity asset. There is support for this view in the investor interviews, which indicate an understanding of the risks and returns entailed in this asset class. We have seen that investors engage closely in the evaluation process of new ventures and are undertaking their investment primarily for financial reasons. They have a medium to long time horizon and seek one or a few "golden unicorn" successes to offset the fact that they realise the bulk of their investments will either fail or provide at best lacklustre returns. We conclude from the interviews that most investors appeared to have some understanding of the risks involved in ECF investments. Moreover, many investors valued, over and above the potential returns, the opportunity to participate in the creation or expansion of either one or several businesses. For investors, ECF presents a window on the work of private firms in a low transaction costs and high visibility environment, to which they previously had no access. The implications of mass participation by investors in ECF may have implications for future entrepreneurial activity in the country. Experiences, even vicarious ones, open the set of possibilities that individuals may have previously not considered.

We finally address an issue only indirectly thematised in our interviews, namely whether ECF provides skills and advice from the investor to the fledgling enterprise, as is claimed for VC (Gompers and Lerner 2011). The ECF platforms do offer mechanisms for the speedy and costless transfer of knowledge through the social networks—posts, followers and comments—and we have evidence that these are widely used and noted, especially by other investors in making their investment choices. Moreover, ECF offer possibilities for entrepreneurs not available through other funding mechanisms; to test their products, to develop their brand, to build a loyal customer base, to turn customers into investors. Nonetheless, on both the investor and entrepreneur side, our interviews suggest these factors are not always adequate compensation for the absence of expert guidance provided by traditional early stage financiers, and this may limit the attractiveness of ECF into the future. However, some interviewees note that the crowd contains many members who do not have the relevant skills and expertise to assist entrepreneurs or are not willing to share their knowledge in such a public forum.

As with most studies, ours has limitations which open the door for future research. To start, we exclusively focus on the UK, because this presents an unprecedented opportunity to document and analyse the emergence of the most significant equity crowdfunding market in the world. However, this remains a single country study with all the associated pitfalls for generalisation. Our reach across levels of analysis could also be seen as a limitation. However, in combining quantitative sector level analysis and qualitative actor level analysis, we are able to draw links between the macro consequences of microbehaviour. We believe that it would be incomplete to rely on one or the other level of analysis in trying to open the discussion on our research questions. Future research should consider each level of analysis separately and allow the literature to integrate findings across multiple research efforts. Finally, crowdfunding, and equity crowdfunding in particular, are emerging phenomena which are as yet only superficially understood. Our qualitative work with entrepreneurs and investors opens the door to more questions that can only be explored with the benefit of time.

## 7 Conclusions and policy implications

We noted at the outset of this paper that entrepreneurial ventures are an important source of innovation, economic growth and job creation and that many countries are probably underachieving relative to this potential, perhaps because of deficiencies in the supply of finance. However, recently there has been a considerable flow of funds to early stage entrepreneurial firms in the UK,

associated with rapid growth and maturation of the ECF market, with increasing concentration and market deepening in terms of the number of investors, the amount invested and sums raised for new ventures. We have argued that this is likely due to a combination of favourable circumstances in the UK including light-touch regulation and attractive tax benefits for early stage entrepreneurial investors. We now turn to the policy implications of our study.

We draw three main recommendations for policymakers that parallel the levels of our analysis. First, our research shows that financial innovations can emerge in periods where traditional institutions create voids. The 2008 financial crisis proved just such an opportunity in the UK, leading entrepreneurs to look to the power of the internet and social media for access to finance. In the absence of a prescriptive regulatory structure, and in the face of an economic and political constraint, UK financial regulators and platform innovators worked together to create an institutional logic that allowed entrepreneurs, investors and platform intermediaries to experiment with equity crowdfunding as a financial innovation.[14] Drawing on this UK experience with *light-touch regulation*, policymakers could be reminded that, although innovation normally runs ahead of regulation, regulatory stakeholders can shape practice with policy and principles in advance of formal rules. Practically, this requires tight connections to innovators to avoid unintended consequences of policy. Not every country nor every legal system or cultural environment can support such an approach; however, our policy recommendation of vigilance but temperance is a strategic choice that could be judiciously transferred across institutional contexts.

The growth of equity crowdfunding in the UK also raises policy implications for the entrepreneur and investor ecosystem. We noted that in the UK, as in many other countries, there has been a persistent gap in access to early stage finance for entrepreneurs. History will judge whether equity crowdfunding is the financing innovation that might help to address this persistent problem; yet what is clear that the emergence of equity crowdfunding in the context of increased digitalisation of economic life has created new opportunities for policymakers to engage with both entrepreneurs and investors in ways that were previously more constrained. Our research shows that entrepreneurs vary in their appetite for the open format of raising financing over the internet. Some eschew the public nature of success or failure that platform financing entails. Others have used the social media internet environment to strategically anchor existing customers, to raise their public profiles and to attract follow-on investors. As with other financial tools, policymakers whose job it is to enable equity crowdfunding should not view it as the hammer that all entrepreneurs need to nail their businesses. Rather, through education and sensitive differentiation of needs, policymakers, with the support of a locally appropriate regulatory framework, could support equity crowdfunding as one of the market choices available for entrepreneurs looking to grow or start their ventures.

Finally, in the UK and elsewhere, policymakers and market observers have raised persistent questions about how investors make decisions in the context of equity crowdfunding. Our research suggests that investors broadly understand the opportunities and limitations involved in equity crowdfunding. This does not imply that every investor understands the risks or that investors cannot be misled or that there is no post-investment regret or opportunism. Investing in illiquid equity in businesses that are starting up or growing is not the norm for even experienced investors. Therefore, policymakers would do well to invest in educating investors and their advisers about the best way to participate in this asset class. Education that results in mindful investing, one that moderates the propensity to make emotional or impulsive decisions, will create a more stable environment for both entrepreneurs and investors in this marketplace. However, our research shows that policymakers looking to support the entrepreneurial ecosystems in their geographies should consider the tacit benefits of a vicarious education that investors receive when they are able to observe others engage in entrepreneurial activity.

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[14] It should be noted that the equity crowdfunding unlike debt-based crowd-lending is far more difficult to scale and, in the eyes of regulators, presents a more confined risk to consumers.

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