

Citation for published version:

Nigel Culkin, Ekaterina Murzacheva, and Andrew Davis, 'Critical innovations in the UK peer-to-peer (P2P) and equity alternative finance markets for small firm growth', *The International Journal of Entrepreneurship and Innovation*, Vol. 17 (3), August 2016.

DOI:

<https://doi.org/10.1177/1465750316655906>

Document Version:

This is the Accepted Manuscript version.

The version in the University of Hertfordshire Research Archive may differ from the final published version.

Copyright and Reuse:

© 2016 The Author(s).

This manuscript version is made available under the terms of the Creative Commons Attribution licence CC BY 4.0 (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

Enquiries

If you believe this document infringes copyright, please contact Research & Scholarly Communications at rsc@herts.ac.uk

**Critical Innovations in the UK Peer-to-Peer (P2P) and Equity Alternative Finance
Markets for Small Firm Growth**

Nigel Culkin

Ekaterina Murzacheva

Andrew Davis

***Abstract:** This paper examines the disruptive nature of financial innovations available to small firms by the growing range of online platforms that have emerged in the UK since the financial crisis. It is unveiled that finance provided to small firms via such mechanisms is not identical to more traditional sources and its adoption therefore cannot be said to be simply a question of direct substitution based, for example, on a price comparison. These offer a series of important advantages over more traditional sources of early-stage capital for entrepreneurs seeking funding. Service innovations around security, flexibility of terms, speed of access and transparency of pricing are as important as price considerations for many users, as are innovations made possible by the way these online markets are structured and in particular in the way these innovative structures allow important types of risk to be dispersed and mitigated.*

Keywords: *innovation; crowdfunding; P2P lending; alternative finance; business growth.*

Nigel Culkin is a Professor of Enterprise and Entrepreneurial Development in the Marketing and Enterprise Department, Hertfordshire Business School, University of Hertfordshire, College Lane, Hatfield, AL10 9AB, UK. Email: n.culkin@herts.ac.uk

Ekaterina Murzacheva is a Lecturer in Enterprise in the Marketing and Enterprise Department, Hertfordshire Business School, University of Hertfordshire, College Lane, Hatfield, AL10 9AB, UK. Email: e.murzacheva@herts.ac.uk

Andy Davis is an Independent Journalist and a Visiting Researcher in the Marketing and Enterprise Department, Hertfordshire Business School, University of Hertfordshire, College Lane, Hatfield, AL10 9AB, UK. Email: andy.davis.ft@googlemail.com

December 2015

Critical Innovations in the UK Peer-to-Peer (P2P) and Equity Alternative Finance Markets for Small Firm Growth

***Abstract:** This paper examines the disruptive nature of financial innovations available to small firms by the growing range of online platforms that have emerged in the UK since the financial crisis. It is shown that finance provided to small firms via such mechanisms is not the same as more traditional sources and its adoption therefore cannot be said to be simply a question of direct substitution based, for example, on a price comparison. The platforms offer a series of important advantages over more traditional sources of early-stage capital for entrepreneurs seeking funding. Service innovations around security, flexibility of terms, speed of access and transparency of pricing are as important as price considerations for many users, as are innovations made possible by the way these online markets are structured and in particular in the way these innovative structures allow important types of risk to be dispersed and mitigated.*

***Keywords:** innovation; crowdfunding; P2P lending; alternative finance; business growth.*

Introduction

Alternative forms of finance have revolutionised traditional banking and equity finance for early stage growth firms, and have gained momentum rapidly in the last 3 years (Baeck *et al*, 2014). It has become an acknowledged way for start-up firms to raise equity finance in sums, too small to be efficient for traditional forms of Venture Capital; and an easy accessible tool for small firms seeking debt finance (Bank of England, 2015).

In this paper the authors consider a significant part of Alternative Finance, represented by crowdfunding and peer-to-peer lending online platforms. The phenomenon has caught the attention of entrepreneurial finance researchers, where certain definitions have been developed (Hildebrand *et al*, 2013), a classification has been proposed to distinguish among

different forms of crowdfunding (Ahlers *et al*, 2012; Afuah and Tucci, 2012; Griffin, 2012; Zhang and Liu, 2012), and some campaign success factors have been investigated (Colombo *et al*, 2015). However, consistent comparisons and in-depth analyses have been constrained by the lack of available data, protected by their holders – crowdfunding organisations. As a result, a general understanding of the market remains descriptive and scattered.

Unlike previous studies, this paper aims to take a consolidating stance at the macroeconomic level, where Alternative Finance (in part of online crowdfunding and peer-to-peer lending) is viewed as a new institution, which by means of certain competitive advantages augments existing formal mechanisms of entrepreneurial finance and helps facilitate start-up and small firm growth (Wright *et al*, 2015). The objective of the research is to identify and summarise key structural innovations in the online crowdfunding and peer-to-peer lending, which drive the ongoing transformations in the entrepreneurial finance market, replacing traditional venture capital and bank lending. Our contribution lies in forming a theoretical foundation in line with the collected empirical facts, addressing the impact of online crowdfunding and peer-to-peer lending on the overall finance market available to support small firms' growth.

The remainder of this paper is organised as follows: first, a theoretical background of crowdfunding as a disruptive innovation and new market will be developed, second, the empirical evidence will be outlined to underpin the propositions: separately for peer-to-peer lending, and equity crowdfunding, and finally, conclusions and implication drawn from the analysis will follow the discussion of the results.

Research in Crowdfunding: Overview

The Alternative Finance is a relatively new phenomenon and, as such, not only is there a paucity in related literature, no one universally accepted definition has emerged. For the purposes of this study we adopt a working definition of Alternative Finance, as a range of

new financial instruments arising in the market and available to seed ventures, characterised by three common features: quick diffusion, platform-mediated approaches, and the use social networks to harness communities (Bruton *et al*, 2015). These financial innovations mainly include: microfinance, crowdfunding, peer-to-peer lending, and community funding (Fraser *et al*, 2015).

According to Belleflamme *et al* (2010; 2014) and Mollick (2014), the ‘crowdfunding’ activities involve an open call, mostly through the Internet, for the provision of financial resources either in form of donation or in exchange for the future product or some form of reward (including equity) to support initiatives for specific purposes. Peer-to-peer lending (or P2P) - a tool for providing micro-loans is often considered separately from crowdfunding, although adopting the same business model (Herzenstein *et al*, 2010; Lin *et al*, 2013; Komarova Loureiro and Gonzalez, 2014). These two forms of Alternative Finance represent the core object of the study, and can be easily compared with bootstrap finance, which favours the use of internal funds as opposed to external providers such as, angel investors or bank loans (Bhide, 1991; Sarasvathy, 2001; Winborg, J., 2015). Belleflamme *et al* (2014) have also looked at crowdfunding through a lens of ‘pre-ordering and price discrimination’, and supporting the earlier work of Nocke *et al* (2011) linked product pre-ordering to price discrimination in a context of information asymmetry.

However, while parallels have been drawn with other sources of entrepreneurial finance in order to gain a better understanding of crowdfunding (Ebben and Johnson, 2006; Winborg and Landstrom, 2001), few papers have considered it from an innovation perspective. At the same time, the innovative nature of the crowdfunding (and P2P) business model thrives on the technological progress of online transactions, and seems to be the core pillar of the phenomenon (Davis, 2012).

New Market Formation: Innovations in the Entrepreneurial Finance Market

The innovation-decision process as a series of steps from awareness to adoption has become an important topic for sociologists and business practitioners (Kaur Kapoor *et al*, 2014; Rogers *et al*, 2005). From an economic perspective, the incentive to innovate is the difference in profit that a firm can earn if it invests in research and development compared to what it would earn if it did not invest (Gilbert, 2006). The limitations of such an approach underestimate innovation as a coupling and matching process, where interaction is the critical element (Tidd, 2006).

Over the past fifteen years, interest has shifted from the diffusion and adoption of innovation(s) *per se*, towards understanding how incumbent firms respond to change when the innovation threatens its current *modus operandi*. This shift has acknowledged a process in which innovation occurs as complex and often chaotic (Christensen, 1997). In addition to the threats to innovation within an organisation (Christensen, 2002), there are those posed by changes in the market. A small threat, often referred to as, steady-state innovation, will see a firm responding to innovative activity in product and process terms, along the lines of ‘doing what we do, but better’ (Bessanet *et al*, 2005). A significant threat is one that creates a discrete and momentous change for the incumbent firm, or its value chain. In this case, when conditions move beyond a *steady-state* in terms of technology, market or some other dimension it can lead to a period of *creative destruction*, whereby old regimes are destroyed in order that resources are freed up for new (Christensen and Raynor, 2003; Schumpeter, 1942). Stemming from this perspective, crowdfunding and P2P lending can be viewed as a new market, potentially initiating creative destruction in the entrepreneurial finance market, forcing incumbent institutional organisations, and professional private investors either to change to be able to compete, or give up traditional forms of formal finance:

Proposition 1: Crowdfunding and P2P platforms represent a business model innovation, which gives rise to a new market emergence that will result in creative destruction of traditional forms of formal entrepreneurial funding.

Linked with an interest in how incumbent firms respond to the Schumpeterian notion of *creative destruction* is a concern that while innovations can be disruptive to incumbents, treating them as a homogenous group has in fact complicated, not clarified, a complex issue. In its original guise, Christensen's (1997) model considered technological innovation from the perspective of how new technologies came to surpass seemingly superior technologies in a market. The disruptiveness of innovations (which characterises the ability of an organisation to surpass the existing technology, product, or service) is described in the literature as a continuous variable, comprising such features as lower price, improved performance, and being appealed to the 'low-end' market, represented by the more price-sensitive customer segment (Govindarajan and Kopalle, 2006a). This could be directly applied to the crowdfunding and P2P market, mainly addressing start-ups as the low-end customer segment, seeking for the cheap, accessible and unburdening finance. These financial innovations can be viewed as an outcome of a technological opportunism (Srinivasan *et al*, 2002), which allowed them to compete with the traditional finance providers in the same niche: business angels (along with other forms of venture capital), and banks:

Proposition 2: Crowdfunding and P2P platforms outperformed low-end competition, and gained customers (small businesses) loyalty, resulting in their rapid dissemination and growth rates.

In his further developments Christensen and Raynor (2003) pointed that over time, users require less from the original product than offered with each product cycle enhancement. A disruptive technological innovation results in the addition of a new

technological curve, offering inferior attributes and performance than existing technology. Christensen coined the terms, 'low-end' or 'new market' disruptions to describe the change. Low-end disruptive technology focuses on the needs of the low end of the market, however, over time, as technology improves, it is able to compete with the mainstream technology and competes at the high end of the market as well. Assuming that high-end market is represented by early-adopters, who are least prices sensitive, the dynamics on the crowdfunding and P2P lending market demonstrates the signs of a radical innovation (Rogers, 2003), by conquering new niches, targeting more advanced businesses, or companies at the later stages of their development. Currently these platforms have proved that they perform well on the low-end market (targeting low-margin start-ups), and started reaching more sophisticated businesses, maintaining the same dimensions of value (Govindarajan and Kopalle, 2006b):

Proposition 3: Crowdfunding and P2P lending platforms are currently in the position of 'high-end' competition, where new entrants are joining the market, offering new modifications and alternatives.

Christensen and Raynor (2003) went on to advocate that, customers impose a great indirect control of the resource allocation process inside a company; this was fundamental to understanding why established firms encounter problems under conditions of discontinuous change. This refinement actually, embraces work previously undertaken by Henderson and Clark (1990) along with Tushman and Anderson (1986) who attributed failure to a firm's inability to renew its resources, structures and capabilities. Later still, Christensen widened its application to embrace products and business models, arguing that together, they strengthen the notion that incumbent firms encounter most problems when trying to engage with discontinuous innovations (Culkin *et al*, 2006). A firm may possess sufficient competencies to manage its way through fluctuations in the market, but when technologies or business

models change, new markets emerge or the regulatory frameworks of an industry are altered, they find it hard to adapt to these shifts (Sandstrom and Osborne, 2011).

Proposition 4: Crowdfunding and P2P lending represents a market of discontinuous innovations, leaving traditional banking and equity markets in a disadvantaged position.

As a result, the traditional market of entrepreneurial finance has not only faced the adverse effects of macroeconomic changes, but has also been exposed to the structural changes in the economy in recent years, imposing certain implications for their future functioning:

Proposition 5: The emergence of a new crowdfunding and P2P lending market causes structural fluctuations in the economy, thus defining a new context for the existing institutions.

In the rest of the paper empirical evidence will be provided to reinforce the propositions – the threats, which is what we argue online crowdfunding platforms most closely resemble and how incumbents, entrepreneurs and other actors (e.g. Government Agencies) respond. This paper does not examine the separate but related phenomenon of donation-based crowdfunding (Kromidha, 2014; Mitra, 2014). The major donation-based crowdfunding sites including Kickstarter and Indidgogo are based in the US, although they have been used by some UK-based small businesses seeking funding for creative projects or product launches.

Method

Research on crowdfunding remains scattered and partial, mainly restrained by the limited access to the information, especially on the side of capital providers. An inductive research approach (Locker, 2007) was employed to develop insights into the way in which key stakeholders construct their world or work. In this paper the detailed readings of raw data were used to identify the elements of structural innovations, develop a model of a new market

of alternative finance for small businesses, provide a summary of its the key characteristics, and clearly distinguish it from the traditional lending and investing mechanisms.

The primary material for the paper was gathered via unstructured interviews over a period of 2012-2015 with the principals behind eight leading P2P lending and equity crowdfunding platforms in the UK (see table 1).

Insert Table 1 about here

This material was supplemented by the wide reading of the media coverage and specialist commentary on the developing P2P sector, as well as insights collected through such organisations as the British Business Bank, the Financial Conduct Authority, the Department for Business, Innovation and Skills, the Treasury, the ACCA and KPMG (Davis, 2012). Some information is drawn from the individual platforms, which are representative of the industry in each major product area (SME short-term lending, SME invoice finance, and equity), as this leading group accounts for about 90% of the market overall (AltFi, 2014).

Developments in Online Platforms

Crowdfunding and P2P lending by means of certain competitive advantages tend to occupy the low-end position in the market, represented by the small businesses looking for modest sums to get their venture started at minimum costs within a relatively short period of time. The evidence suggests that P2P and Crowdfunding services for small firms are in the midst of a period of rapid growth that is bringing an alternative source of funding to smaller British companies – at current rates, it is possible that, by the end of 2014, some £1bn will have been channelled to small companies. Over the past few years these competitive advantages, often referred to in the literature (Mollick and Robb, 2016), have been systematically shaped into structural innovations. The latter have given rise to a new market, attracting more advanced ‘high-end’ firms, who are ready to switch from traditional funders (see fig.1).

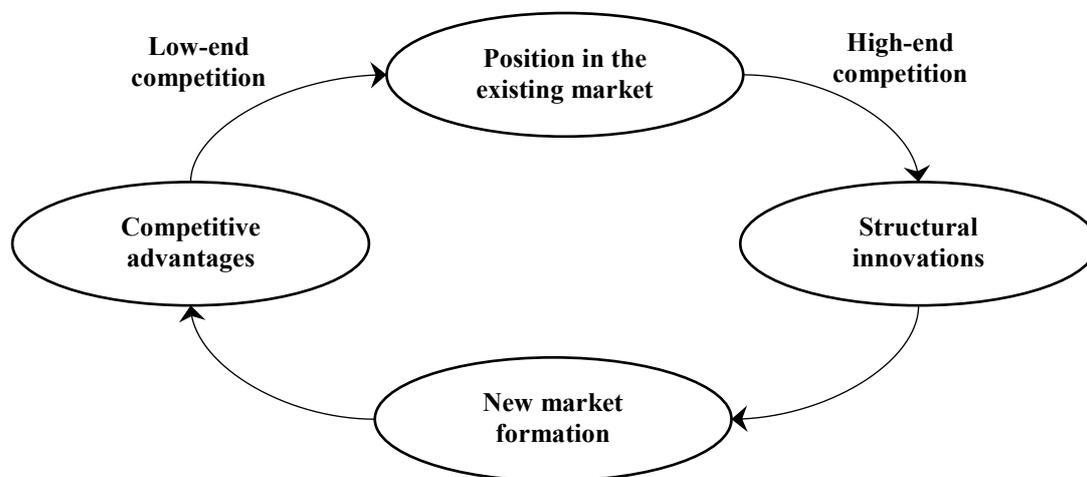


Figure 1 The innovation cycle in the equity and lending markets for small businesses

As a result, crowdfunding and P2P lending as a rapidly developing form of alternative finance reveal to be a new growing market. The pattern of this growth, and its antecedents will be considered separately in relations to P2P lending and equity crowdfunding.

Small Business Lending

To date, the development of the P2P and Crowdfunding market for small businesses in the UK has followed a clear pattern. Modest loans to smaller companies is the main attribute of P2P lending market, where the mean amount lent through Funding Circle was £2,000 (Pierrakis and Collins, 2013). These businesses therefore sit at the smaller end of the SME spectrum and, given their size and riskiness compared with the cost of assessing their creditworthiness, we would argue they are the least likely to provide significantly profitable lending opportunities for banks. The only caveat is unless they buy other products and services from the same bank, thereby producing a profit on a “product portfolio” basis. They are also the least likely to have significant assets with which to back their borrowing.

The P2P lending platforms can therefore be said to occupy the *bottom up* market, concentrating their efforts on building a strong base of borrowers among smaller companies

that require relatively modest loans and represent the least attractive combination of risk and return for conventional lenders.

In the case of platforms specialising in business lending and in particular the dominant platform, Funding Circle, it is clear that the popularity of the service can be attributed to a series of factors, of which cost of capital to the borrower is not necessarily the most important. Instead, previous research indicates that the speed with which applications to post a loan request on the platform are decided is critical in entrepreneurial choice of funding source (Pierrakis and Collins, 2014). Low fixed costs enable the platforms to trade on a mix of their arrangement fees plus a spread of just 1% (at least 2% for banks) between the rates charged to borrowers and the rates paid to lenders (Baeck *et al*, 2014). In Table 2 below, we summarise the main factors, which have shaped entrepreneurial choice towards P2P lending in accordance with the Innovation Circle outlined above.

Insert Table 2 about here

This analysis suggests that P2P lending represents a potential threat to the formal banking sector, where more favourable conditions, increased processing speed, and a more effective communication interface attract more and more entrepreneurs – a fact which lies in the basis of crowdfunding as a potential source of creative destruction (proposition 1). Platforms managed to establish the niche in the broader funding market, where a number of the factors that help to ensure their popularity with borrowers also contribute to their ability to establish their market position in relation to other lenders, in particular. Thus P2P platforms open up a market niche at the lower end of the loan market that banks are not keen to compete in (proposition 2).

The leading SME lending platforms have been responsible for introducing a series of structural innovations as a result of the ‘high-end’ competition. They can mostly be referred to the business-model innovations that did not exist in the same form before the emergence of

these online “loan-matching” services and that bring genuinely new benefits to SME that use these markets. These innovations have been achieved as an outcome of competition among the platforms as well, providing an example to illustrate proposition 3. From the other side, better, cheaper, and faster services of P2P lending have increased the distance from traditional credit institutions who now face discontinuous innovations with which they are challenges to keep up (proposition 4).

The period of turmoil in conventional financing markets led to a temporary retrenchment among the UK’s leading high-street banks, which between them account for more than 90% of term lending to Britain’s small businesses (Financial Conduct Authority, 2014), and created the conditions in which alternative finance providers were able to gain a foothold among business borrowers, no longer able or willing to use bank finance. The early innovators in P2P and Crowdfunding for small businesses were established in the years immediately after the financial crisis - a tendency, reinforcing proposition 5.

Since the financial crisis, approval rates on bank overdraft facilities, particularly by first-time applicants, have declined somewhat and charges for undrawn overdraft facilities have increased, making this a less attractive way for businesses to fund their working capital needs (SME Finance Monitor, 2015). The service that the online invoice discounting platforms provides to small firms has gained popularity with companies that use it by overcoming most, in some cases, implying collaboration between traditional and alternative finance providers (for example, Santander and Funding Circle) if not all, of these criticisms, thus gaining momentum both for the sake of financial crisis, and structural innovations (proposition 5).

Equity Crowdfunding

Online equity crowdfunding in the UK has developed rapidly over the past three years and now follows several models that have slightly different features but all of which enable retail

investors to access marketplaces in which they can buy shares in early-stage, private businesses. For entrepreneurs seeking to raise early-stage risk capital to fund their enterprises, these platforms are opening up a significant new source of finance that it was previously impossible for them to access because of regulatory restrictions on the marketing to retail investors of opportunities to invest in equity offerings. However, since the Financial Conduct Authority regulates the new online intermediaries, they have the necessary regulatory clearances to promote these investments to retail investors and therefore raise funds from this source.

The popularity of equity crowdfunding for entrepreneurs is based on several factors (see table 3), not all of which apply to all platforms, but which illustrate the process of overcoming more severe ‘low-end competition’, than in P2P case (proposition 2).

Insert Table 3 about here

Equity crowdfunding has been able to establish a niche in the market for early-stage investments primarily by altering the “terms of trade” broadly in favour of the entrepreneur and the smaller retail investor by the means outlined above (a statement in support of proposition 3). The growth of the various equity platforms demonstrates a clear appetite exists among the British public, to invest in start-up and early-stage companies and that once deals can be offered at minimum investment commitments of a few pounds, thousands of people are able and willing to participate. This is widening the universe of early-stage equity investments significantly and may ultimately result both in more early-stage propositions receiving equity funding than would have happened previously and in greater competition to fund the most promising opportunities. Over time it is possible that the attractions for entrepreneurs of raising early-stage finance by this route will start to divert “deal-flow” that would previously have gone to other sources of “angel funding” and that the platforms will

therefore also start to attract large numbers of traditional angel investors in search of the most attractive businesses (propositions 4 and 5).

A similar pattern has emerged in equity crowdfunding. Companies selling shares via these platforms are typically trying to raise sums of less than £250,000 and in the case of very early-stage companies most are seeking £50,000 to £100,000. Again, these transactions represent low-value/high-risk propositions (although at the upper end £250,000 represents a significant angel investment if not syndicated to a group) and are the most likely to appear financially unattractive to traditional angel investors if the full costs of conventional legal, commercial and financial due diligence have to be factored into the equation (Mason and Harrison, 2015; Mason and Stark, 2004; Maxwell *et al*, 2011).

As a consequence, and following on from the ideas of Christensen (1997), the online crowdfunding platforms are currently occupying a segment of the market where incumbent providers of finance find it least attractive to operate. The parameters of the market, can be defined as follows:

1. Concentration on unsecured lending to smaller businesses
2. The dominance of individual retail investors
3. Reduced fixed costs due to the absence of the branch networks

Discussion

There are several avenues for further research, suggested by our analysis. In the models operated by platforms, such as Crowdcube and Seedrs, the process of raising equity via a public online marketplace enables the entrepreneurs to use the support of “friends and family” – those who would be likely to invest in their business anyway, for non-financial as much as for financial reasons – in order to garner support from a much broader “crowd” of potential investors who are not known to them personally. The ability that the platform provides to bring together personal networks with the crowd enables the entrepreneur to

harness the “psychology of the crowd” in order to amplify the value of the support they derive from “friends and family” or from angel investors willing to fund part of their target amount³. Anecdotal evidence provided by the staff of the platforms indicates that not only are non-family and friends investors more inclined to back fundraisings that have already attracted funds than those registering zero, but also that they are more likely to back campaigns that have large numbers of existing backers than those that have only one or two, even if those individuals have committed a large proportion of the target⁴.

In addition, equity crowdfunding platforms also tap into other motivations among the investor community beyond the purely financial (Murnieks *et al*, 2015). These include social motivations connected with the desire to support a business that is local or known to the investor in question, and the desire among smaller investors to “take part in the journey” of that business as it grows and to feel a personal connection to the enterprise. By enabling people to commit very small sums to these companies, the platforms make possible a range of non-financial motives for investing that are likely to be as important to those individuals as financial ones. The whole area of investor motivations on crowdfunding platforms is one that is relatively unexplored and would repay further research.

The research covers only selected platforms in the market, which represents one of its limitations. Moreover, more systematic data collection across the distinguished categories, characterising new market parameters, would enable the researchers to develop a robust methodology to validate the propositions. Incomparability of data across the platforms (mainly caused by the private nature of the information) posts another limitation for the consistent analysis.

Conclusions

The paper provides the first attempt to summarise the key structural innovations that online P2P lending and equity crowdfunding enable, and form a new market, centred upon the

provision of efficient, flexible and low-cost ways of bringing together large groups of funders to support relatively low-value transactions. The revealed tendencies fits into the Christensen's model of structural innovations, and contribute to a better understanding of the new mechanisms emerged as a result of the on-going transformations. Considering crowdfunding as a form of structural innovation that follows a process of adoption, and have a potential to replace existing markets of entrepreneurial finance, certain characteristics of creative destruction can be identified. Based on the facts about recent developments in the crowdfunding market, five key threats to the traditional banking and equity infrastructure were identified. These threats illustrate a competitive environment, caused by both macroeconomic fluctuations and structural changes in the economy, imposing certain implications on creditors and investors, which are either to find the way to adapt (as illustrated above), or are condemned to the significant transformations. Backed up with the literature on innovation, the threats are framed into the following propositions, which characterise the recent tendencies. First, that crowdfunding clearly represents a form of a disruptive innovation on the small firm financial market, which certainly overcame 'low-end' competition, and has become massively favoured by the customers-entrepreneurs. As a consequence, the competition reached a 'high-end', where a continuous process of innovation left incumbent credit and investment organisations (and even professional private investors – business-angels) at a disadvantage. In the context of the financial crisis, these structural changes are intensified, giving the space for new markets, and enhancing the fragility of the traditional financial channels for small businesses (McCollough *et al*, 2016).

While the emergent market does not lack its own challenges and pitfalls, which have been briefly raised throughout the paper and in the discussion part, it seems to be a competitive contestant to the existing structures. Thus its impact on small firms' growth and success are vital for further research, and urges the need for the consistent approaches and

robust estimations to be developed with the aim to systematically evaluate its scope, development, and the effectiveness of the integration with the business structures.

References

- AltFi (2014), AltFi Data, Available at: <http://www.altfi.com>
- Afuah, A., and Tucci, C. (2012), 'Crowdsourcing as a solution to distant search', *Academy of Management Review*, Vol 37, No 3, pp 355–375.
- Ahlers, G.K., Cumming, D., Günther, C., and Schweizer, D. (2012), *Signaling in equity crowdfunding*, SSRN Working Paper. Website://ssrn.com/abstract=2161587 or <http://dx.doi.org/10.2139/ssrn.2161587>
- Baeck, P., Collins, L., and Zhang, B. (2014), *Understanding alternative finance: The UK alternative finance industry report*, Nesta, November.
- Bank of England (2015), *Trends in Lending*, April. Website: <http://www.bankofengland.co.uk/publications/Documents/other/monetary/trendsapril15.pdf>
- Belleflamme, P., Lambert, T., and Schwienbacher, A. (2010), *Crowdfunding: An industrial organization perspective*, in prepared for the workshop 'Digital Business Models: Understanding Strategies', Paris, June, pp 25–26.
- Belleflamme, P., Lambert, T., and Schwienbacher, A. (2014), 'Crowdfunding: Tapping the Right Crowd', *Journal of Business Venturing*, Vol 29, No (5), pp 585–609.
- Bessant, J., Lamming, R., Noke, H., and Phillips, W. (2005), 'Managing innovation beyond the steady state', *Technovation*, Vol 25, No (5), pp 1366–1376.
- Bhide, A. (1991), 'Bootstrap finance: the art of start-ups', *Harvard business review*, Vol 70, No 6, pp 109–117.
- Bruton, G., Khavul, S., Siegel, D., and Wright, M., (2015), 'New Financial Alternatives in Seeding Entrepreneurship: Microfinance, Crowdfunding, and Peer-to-Peer Innovations', *Entrepreneurship Theory and Practice*, Vol 39, No 1, pp 9–26.
- Christensen, C. (1997), *The innovator's dilemma: when new technologies cause great firms to fail*, Boston, Massachusetts: Harvard Business Review Press.

- Christensen, C., and Raynor, M. (2003), *The innovator's solution: Creating and sustaining successful growth*, Boston, Massachusetts: Harvard Business Review Press.
- Christensen, J.F. (2002), 'Corporate strategy and the management of innovation and technology', *Industrial and Corporate Change*, Vol 11, No 2, pp 263–288.
- Colombo, M.G., Franzoni, C., and Rossi-Lamastra, C. (2015), 'Internal Social Capital and the Attraction of Early Contributions in Crowdfunding', *Entrepreneurship Theory and Practice*, Vol 39, No (1), pp 75 –100.
- Culkin, N., Randle, K. R., and Morawetz, N. (2006), 'Digital Cinema as Disruptive Technology', Chapter 9 of S. Van Der Graaf, and Y. Washida (eds) *Information Communication Technologies and Emerging Business Strategies*, Idea Group Inc. US
- Davis, A. (2012), *Seeds of Change: Emerging sources of non-bank funding for Britain's SMEs*, Centre for the Study of Financial Innovation, London.
- Ebben, J., and Johnson, A., (2006), 'Bootstrapping in small firms: an empirical analysis of change over time', *Journal Business Venture*, Vol 21, pp 851–865.
- Financial Conduct Authority (2014), *SME Banking Market Study*, Competition and Markets Authority, London.
- Gilbert, C. G. (2006), 'Change in the Presence of Residual Fit: Can Competing Frames Coexist?' *Organization Science*, Vol 17, No 1, pp 150–167.
- Govindarajan, V., and Kopalle, P.K. (2006a), 'Disruptiveness of innovations: measurement and an assessment of reliability and validity', *Strategic Management Journal*, Vol 27, No 2, pp 189–199.
- Govindarajan, V., and Kopalle, P.K. (2006b), 'The Usefulness of Measuring Disruptiveness of Innovations Ex Post in Making Ex Ante Predictions', *Journal of product innovation management*, Vol 23, No 1, pp 12–18.
- Griffin, J.Z. (2012), 'Crowdfunding: Fleecing the American mass', *Case Western Reserve*

Journal of Law, Technology & the Internet, Vol 3, p 375.

Henderson, R., and Clark, K.B. (1990), 'Architectural innovation: The reconfiguration of existing product technologies and the failure of established firms', *Administrative Sciences Quarterly*, Vol 35, pp 9–30.

Herzenstein, M., Sonenshein, S., and Dholakia, U.M. (2011), 'Tell me a good story and I may lend you money: the role of narratives in peer-to-peer lending decisions', *Journal of Marketing Research*, Vol 48, pp 138–149.

Hildebrand, T., Puri, M., and Rocholl, J. (2013), *Adverse incentives in crowdfunding*, SSRN Working Paper. Website: <http://ssrn.com/abstract=1615483>.

Kaur Kapoor, K., K. Dwivedi, Y., and D. Williams, M. (2014), 'Innovation adoption attributes: a review and synthesis of research findings', *European Journal of Innovation Management*, Vol 17, No 3, pp 327–348.

Komarova Loureiro, Y., and Gonzalez, L. (2015), 'Competition against common sense', *International Journal of Bank Marketing*, Vol 33, No 5, pp. 605–623.

Kromidha, E. (2014), *Exploring Online Crowdfunding Innovation, Networks and Locations: Small Businesses in Indiegogo.com*, ISBE Conference, 5-6th November, Manchester.

Lin, M., Prabhala, N.R., and Viswanathan, S. (2013), 'Judging borrowers by the company they keep: friendship networks and information asymmetry in online peer-to-peer lending', *Management Science*, Vol 59, No 1, pp 17–35.

Locke, E.A. (2007), 'The case for inductive theory building', *Journal of Management*, Vol 33, pp 867–90.

Mason, C.M., and Harrison, R.T. (2015), Mason, C.M., and Harrison, R.T. (2015), 'Business angel investment activity in the financial crisis: UK evidence and policy implications', *Environment and Planning C: Government and Policy*, Vol 33, No 1, pp 43-60.

- Mason, C., and Stark, M. (2004), 'What do investors look for in a business plan? A comparison of the investment criteria of bankers, venture capitalists and business angels', *International Small Business Journal*, Vol 22, No 3, pp 227–248.
- Maxwell, A.L., Jeffrey, S.A., and Lévesque, M. (2011), 'Business angel early stage decision making', *Journal of Business Venturing*, Vol 26, No 2, pp 212–225.
- McCollough, M.A., Devezer, B. and Tanner, G., (2016), 'An alternative format for the elevator pitch' *The International Journal of Entrepreneurship and Innovation*, Vol. 17, No 1, pp 55-64.
- Mitra, J. (2014), *Democratising Entrepreneurship: Giving and Sharing in the New Entrepreneurial Economy*, ISBE Conference, 5-6th November, Manchester.
- Mollick, E. (2014), 'The dynamics of crowdfunding: An exploratory study', *Journal of Business Venturing*, Vol 29, No 1, pp 1–16.
- Mollick, E., and Robb, A. (2016), 'Democratizing Innovation and Capital Access: The Role of Crowdfunding', *California Management Review*, Vol 58, No 2, pp 72–87.
- Murnieks, C. Y., Sudek, R. and Witbank, R., (2015), 'The role of personality in angel investing', *The International Journal of Entrepreneurship and Innovation*, Vol, No 16, pp 19–31.
- Nocke, V., Peitz, M., and Rosar, F. (2011), 'Advance-purchase discounts as a price discrimination device', *Journal of Economic Theory*, Vol 146, No 1, pp 141–162.
- Pierrakis, Y., and Collins, L. (2013), *Banking on Each Other: Peer-to-Peer lending to business: evidence from funding circle*, Nesta, April, pp 25–37.
- Rogers, E.M (2003), *Diffusion of Innovations*, New York: Free Press.
- Rogers, E.M., Medina, U.E., Rivera, M.A., and Wiley, C.J. (2005), 'Complex adaptive systems and the diffusion of innovations', *The Innovation Journal: The Public Sector Innovation Journal*, Vol 10, No 3, pp 1–26.

Sandstrom, C., and Osborne, R.G. (2011), 'Managing business model renewal', *International Journal of Business and Systems Research*, Vol 5, No 5, pp 461–474.

Sarasvathy, S.D. (2001), 'Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency', *Academy of management Review*, Vol 26, No 2, pp 243–263.

Schumpeter, J. A. (1942), *Capitalism, Socialism and Democracy*, London: Unwin.

SME Finance Monitor (2015), *An independent report: Q4 2014*, BDRC Continental, February.

Srinivasan, R., Lilien, G.L., and Rangaswamy, A. (2002), 'Technological Opportunism and Radical Technology Adoption: An Application to E-business', *Journal of Marketing*, Vol 66, No 3, pp 47–60.

Talboth, P. (2013), *A study of the techniques used by the Ross Sea Committee to raise funds for New Zealand's part in the Trans-Antarctic Expedition, with selected comparisons of other expeditions*, Unpublished Thesis.

Tidd, J. (2006), *From Knowledge Management to Strategic Competence: Measuring technological, market and organizational innovation*, Imperial College Press.

Tushman, M. L., and P. A. Anderson, P.A. (1986), 'Technological discontinuities and organizational environments', *Administrative Science Quarterly*, Vol 31, pp 439 – 465.

Winborg, J., and Landstrom, H. (2001), 'Financial bootstrapping in small businesses: examining small business managers' resource acquisition behaviors', *Journal of Business Venturing*, Vol 16, pp 235–254.

Winborg, J., 2015. The role of financial bootstrapping in handling the liability of newness in incubator businesses. *The International Journal of Entrepreneurship and Innovation*, Vol. 16, No 3, pp.197-206.

Wright, M., Roper, S., Hart, M., and Carter, S. (2015), 'Joining the dots: Building the evidence base for SME growth policy', *International Small Business Journal*, Vol 33, No 1, pp 3–11.

Zhang, J., and Liu, P. (2012), 'Rational herding in microloan markets', *Management Science*, Vol 58, No 5, pp 892–912.

Table 1: Online platforms engaged in the study

Platform	Product	First Transaction	Total amount raised up to March 2016
Funding Circle	Loans	August 2010	£1162m
ThinCats	Loans	October 2010	£156.7
Funding Knight	Loans	2012	£30.1m
Crowdcube	Equity	July 2011	£145.2
Seedrs	Equity	July 2012	£100m
Syndicate Room	Equity	July 2011	£45.8m
MarketInvoice	Receivables Finance	February 2011	£685.7m
LendInvest	Short-term Property Finance	May 2013	£559.6m

Table 2: P2P lending platforms – the evidence of new market formation

Competitive advantages	Structural Innovations	Examples
Cost of capital	Reverse or Dutch auctions	Lenders bid against each other to advance funds to the borrower (Funding Circle) Borrowers are not penalised for early repayment (Funding Knight)
Speed of the process	Autobid functions (automatic bidding functions)	The processing time is brought down to four working days (Funding Circle)
Security	Personal guarantee (does not include a charge on the directors' personal assets)	The opportunity to secure finance when a company's assets are already pledged as collateral to other lenders (Funding Circle)
Flexibility of terms	Fractionalised lending and secondary markets	Assembling loans from multiple individual offers to lend that can be traded in the secondary markets
Transparency over fees	Q&A forums	Free and equal access to supplementary information on borrowers should help to improve the liquidity of the market on the lending side
Additional benefits	Online invoice auctions	Enable small businesses to auction their trade receivables to groups of buyers in order to accelerate the receipt of funds tied up in unpaid invoices (MarketInvoice and Platform Black)

Table 3: Equity crowdfunding - the evidence of new market formation

Competitive advantages	Structural Innovations	Examples
Control over price	Demand-led deal origination mechanism	Companies are allowed to set the financial terms of the transaction – the size and price of the offering (Crowdcube and Seedrs)
Control over terms	Demand-led deal origination mechanism	Companies are allowed to determine the shareholder rights (Crowdcube)
Decreased transaction costs	Nominee structure	The platform becomes the sole legal representative of the underlying group of shareholders in the company (Seedrs)
Lack of formal Due Diligence	Q&A forums	Most equity crowdfunding rely on the “wisdom of the crowd
Low minimum investment sizes	Online administration procedures	Minimum investments can be as little as £10 or £20
Overfunding	‘All or nothing’ business model	Companies are allowed to continue accepting offers to invest once they reach their initial funding target, provided that these additional shares are sold on the same terms as the initial tranche
Advocacy	Value co-creation	Retail investors can also be well-placed to become early adopters of their product or service

