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## THREE ESSAYS ON EQUITY CROWDFUNDING AND THE DIGITALIZATION OF ENTREPRENEURIAL FINANCE

Iurchenko Denis

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FACULTÉ DES HAUTES ÉTUDES COMMERCIALES  
DÉPARTEMENT STRATÉGIE, GLOBALISATION ET SOCIÉTÉ

**THREE ESSAYS ON EQUITY CROWDFUNDING AND  
THE DIGITALIZATION OF ENTREPRENEURIAL  
FINANCE**

THÈSE DE DOCTORAT

présentée à la

Faculté des Hautes Études Commerciales  
de l'Université de Lausanne

pour l'obtention du grade de  
Docteur ès Sciences Économiques, mention « Management »

par

Denis IURCHENKO

Directeur de thèse  
Prof. Jeffrey Petty

Jury

Prof. Rafael Lalive, président  
Prof. Guido Palazzo, expert interne  
Prof. Tatiana Manolova, experte externe  
Prof. Jörn Block, expert externe

LAUSANNE  
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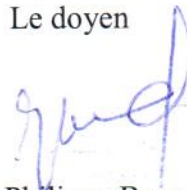
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La thèse est intitulée :

### **THREE ESSAYS ON EQUITY CROWDFUNDING AND THE DIGITALIZATION OF ENTREPRENEURIAL FINANCE**

Lausanne, le 23 mai 2019

Le doyen



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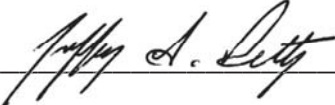
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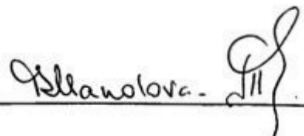
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## **CHAPTER ONE – Introduction**

Since its emergence in the late 2000-s, platform-based, online crowdfunding has become a prominent source of funding for a rich variety of initiatives. In general, online crowdfunding may be described as “a novel method for funding a variety of new ventures, allowing individual founders of for-profit, cultural, or social projects to request funding from many individuals, often in return for future products or equity” (Mollick, 2014, p. 1). Projects funded on crowdfunding platforms range from charitable in nature donations for a good cause to business ventures with a potential to yield a return on investment. Thus far, the reward-based form of crowdfunding, whereby backers may receive a nonfinancial reward (e.g., an advertised product) in return for their financial contributions (Belleflamme, Lambert, & Schwienbacher, 2013) has attracted most of the public attention. Some of the ventures posted on Kickstarter – leading reward-based crowdfunding platform – such as Exploding Kittens (card game) or BauBax (jacket for travelers) were unlikely to be funded by professional investors. Nevertheless, entrepreneurs behind these and related ideas managed to generate media coverage and successfully transform customer awareness into financial contributions totaling above \$5 million. Despite the tremendous success of a small number of ventures, they remain outliers. As few as 0.214% of all successfully funded Kickstarter campaigns raise \$1 million or above, whereas only one-third of all projects that reached their goals attracted more than \$10,000 (Kickstarter, 2019). While this may be a substantial amount for pre-seed stage startups, the benefits of a \$10,000 fundraising campaign for a more mature company are somewhat questionable.

Moreover, this type of crowdfunding is entirely suitable for B2C ventures that may secure support from the general public by offering some tangible rewards. However, reward-based crowdfunding offers fewer opportunities for high potential but specialized startups as

well as for those targeting the B2C sector. Finally, although a reward-based crowdfunding campaign may serve as a valuable market test and provide much useful feedback from potential customers, the crowd is unlikely to offer any professional advice. Unlike venture capitalists (Gorman & Sahlman, 1989; Hellmann & Puri, 2002), “hands-on” investors “who carefully select the investment projects they are proposed (Sahlman, 1988, 1990) and remain deeply involved in those projects after investment is realized” (Casamatta, 2003, p. 2059), an average backer of a Kickstarter campaign lacks both expertise and incentives to help an entrepreneur develop his or her business strategy or find potential investors for the next round.

More recently, equity crowdfunding, a more commercial form of crowdfunding, whereby the crowd “takes an equity stake in the business in much the same way VC funding works” (Vulkan, Åstebro, & Sierra, 2016, p. 37), has firmly established as an alternative solution for entrepreneurs seeking both flexibility and swiftness of online fundraising as well as a considerable amount of funding historically associated with professional investors. For example, in 2017, the average successful campaign advertised on Crowdcube – leading equity crowdfunding platform – raised as much as £692,000 (\$900,000), and the most funded in 2017 campaign (restaurant chain Vita Mojo) attracted £3.2 million (\$4.16 million) (Crowdcube, 2017). The results of this study indicate that the least funded, successful campaign posted on Crowdcube between September 2017 and September 2018 managed to attract as much as £54,600 (\$71,000), which is substantially higher than most reward-based Kickstarter projects ever raise. Consequently, equity-based crowdfunding is suitable for a wider concerning both industry and maturity spectrum of companies.

Two other significant aspects differentiate equity crowdfunding from other forms of online fundraising in a fundamental way. First, because equity crowdfunding provides an opportunity to receive a return on investment, it is becoming increasingly attractive for professional investors (Schwienbacher, 2018). In some cases, professional investors

participate on equal footing with the crowd (e.g., Crowdcube, Seedrs), in others, deals are pre-selected by business angels – private individuals who, in contrast to VCs, often invest in a wide variety of projects and industries, thus increasing the scope of potentially qualified deals (Shane, 2009) – and VCs (Syndicate Room). Second, equity crowdfunding involves selling securities of companies in the form of equity, debt, or convertible note. Therefore, equity crowdfunding falls within the purview of securities laws and requires regulatory approval. Overall, equity crowdfunding is a multidimensional concept, which uniquely combines properties of traditional, professional equity funding as well as more recent, amateur Internet-based fundraising.

These unique characteristics of equity crowdfunding described above, as well as its increasing role in entrepreneurial ecosystems, have generated considerable interest from entrepreneurship scholars (Block, Colombo, Cumming, & Vismara, 2018; Mochkabadi & Volkmann, 2018). Recently, researchers have acquired insights into the impact of selected campaign characteristics (e.g., team quality, equity retention) on funding success (Ahlers, Cumming, Günther, & Schweizer, 2015; Piva & Rossi-Lamastra, 2018). Nonetheless, several unresolved issues warrant further investigation. To start with, the continued existence of equity crowdfunding markets fundamentally depends upon regulatory approval. The existing crowdfunding literature, however, only skimmed the surface of how government policy shapes crowdfunding markets (Cumming, Vanacker, & Zahra, 2019; Johan, Cumming, & Zhang, 2018). Numerous studies offer a detailed legal analysis of crowdfunding legislation in different countries (Horváthová, 2018). Yet, the comprehensive understanding regarding how crowdfunding policies and regulations are enacted, why they are so rapidly disseminated across the globe, and how these processes are shaped by the public discourse and interests of key stakeholders is still not available.

The global character of the pro-crowdfunding reforms as well as their rapid diffusion across the globe despite the apparent lack of strong corporate backers highlights a marked difference between equity crowdfunding and other financial innovations (e.g., Funk & Hirschman, 2014). Another sharp distinction of the legalization of equity crowdfunding from previous regulatory changes such as the amendments to the “Prudent Man” Rule in 1979 is the former’s prominence in public discourse. Previously, security regulations used to be discussed behind closed doors among a narrow circle of investors and government officials. The legalization of equity crowdfunding has been a more dynamic and multistakeholder process. Suddenly, securities regulations – a highly specialized topic – were featured in national newspapers and other public media. In the United States, the regulatory reform that also contained special provisions on equity crowdfunding was a part of a nationwide, the JOBS Act political campaign spearheaded by the incumbent President Barack Obama. Equity crowdfunding was described as a possible remedy against unemployment, and thus its swift legalization was a public interest issue. Across the globe, the legalization of equity crowdfunding has not faced a fierce opposition from incumbent players – professional investors, which makes a stark contrast to the normative view on industry change (Ingram & Rao, 2004; Kim, Shin, Oh, & Jeong, 2007). This mutual tolerance and, sometimes, collaboration between established actors and new market entrants is an exciting phenomenon calling for further investigation. Overall, studying the legalization process of equity crowdfunding across several countries may lead to numerous surprising findings that may be generalizable for other emerging industries, in particular, for those based on a broader community of users such as recent sharing economy innovations.

Another promising avenue of research is related to the core principle of crowdfunding – the wisdom of the crowd (Surowiecki, 2004). In its literal sense, this means that, taken together, all individuals should be making rational funding decisions. Indeed, it is vital that



the increasing number of unprofessional investors arrive at informed funding decisions and back productive entrepreneurship. Emerging evidence indicates that in some circumstances this may be the case. For example, a community of users in a non-commercial context may arrive at informed decisions similar to those of experts (Mollick & Nanda, 2016). However, the evidence regarding the rationality of decisions in equity crowdfunding is inconclusive (e.g., Abrams, 2017). Scholars have demonstrated the strong influence of herding momentums on the funding dynamics (Vulkan et al., 2016). However, it is not entirely clear whether this behavior is driven by rational factors (Vismara, 2016b).

The dynamics of an online environment and the one-to-many relationships between the entrepreneur and many prospective investors significantly impact the quality and type of due diligence, which, in the VC context, typically includes “confirmation of the nature and status of the firm's product, production capability, market demand, and status of key relationships with other organizations (Fried & Hisrich, 1994)” (Bruton & Ahlstrom, 2003, p. 243), but there is evidence indicating the occurrence of a certain level of vetting. To facilitate the selection process, many leading equity crowdfunding platforms adopted discussion forums that allow information exchange among prospective investors as well between investors and entrepreneurs. Whereas similar online forums serve as an effective reputation mechanism in the e-commerce context (Tomboc, 2013), there is a profound lack of understanding of how these online discussion platforms impact crowd decision-making in the equity crowdfunding context. Since both professional and everyday investors invest on equity crowdfunding platforms, I expect that professional investors conduct some form of due diligence. Given the time and format constraints imposed by the crowdfunding format on investors, I presume the online due diligence to be a quick and straightforward process much unlike the laborious approach employed by VCs. However, up until now, we know very little about

communication dynamics on equity crowdfunding discussion boards, and what impact, if any, it has on crowdfunding decisions.

Based on the discussion above, I propose two sets of research questions for this dissertation. With respect to the legalization process of equity crowdfunding, I ask the following research questions:

- How did the digitalization of entrepreneurial finance affect the relationship between traditional capital providers, government actors, and entrepreneurs?
- How were the (securities) regulations redesigned in light of the digitalization of entrepreneurial finance?
- How did other countries respond to the much-publicized passage of pro-crowdfunding regulations in the United States?

In addition, I pose the following questions with regard to the discussed above investor-entrepreneur discussion dynamics:

- How do online discussions between investors and entrepreneurs impact equity crowdfunding performance?
- What are the dynamic and thematic patterns of investor-entrepreneur online discussions?

In general, this study seeks to offer a deeper understanding of the emerging equity crowdfunding phenomenon. I focus on two previously unexplored research directions. On the industry level, I analyze the emergence and legalization of equity crowdfunding in the United States and across four Commonwealth countries – the United Kingdom, Canada, New Zealand, and Australia. To pursue these research directions, I draw on the literature on new industry emergence and legalization (Gurses & Ozcan, 2015; Hiatt & Park, 2013), which have

analyzed similar processes in other contexts such as the regulatory approval of peer-to-peer ridesharing services in the UK, Netherlands and Egypt (Uzunca, Rigtering, & Ozcan, 2018) or regulatory categorization of dietary supplement in the US (Ozcan & Gurses, 2018). Furthermore, I borrow from the studies of policy diffusion (Henisz, Zelner, & Guillén, 2005; Simmons, Dobbin, & Garrett, 2006) to analyze the adoption of pro-equity crowdfunding rules in the UK, Canada, Australia, and New Zealand following the initial campaign for the legalization of equity crowdfunding in the United States. On the platform level, I look into how communication between an entrepreneur and crowd investors impacts the success and performance of equity crowdfunding campaigns. To address this and related research questions, I engage with the studies of investor decision making in the domain of entrepreneurial finance (Macmillan, Siegel, & Narasimha, 1985; Muzyka, Birley, & Leleux, 1996) as well as with the broader management literature analyzing the certification effect in strategic selection processes (Fernandez, Castilla, & Moore, 2000; Megginson & Weiss, 1991). Methodologically, I explore the research directions discussed above using both qualitative and quantitative methods.

## **Summary**

This chapter established the basis for the dissertation. This study builds upon the studies of new industry emergence and legalization, policy diffusion, social movement framing theory as well as existing literature on investor decision-making to study equity crowdfunding at both industry and platform levels.

As you may see in Figure 1 and Table 1, the field of equity crowdfunding was originally focused on the industry level, but then the center of scholarly attention has shifted to the individual and platform levels. Only recently, the industry level of analysis has started

to regain prominence. In my dissertation, I combine both levels to analysis to gain a more holistic perspective on equity crowdfunding.

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Despite perceived differences, the processes of legalization and crowdfunder decision making are both multistakeholder decision-making processes. As I demonstrate in this dissertation, the social discourse plays a significant role in both of them. While this study uses two different levels of analysis, namely, industry and platform levels, as well as different dependent variables – funding decisions and legalization processes – my primary focus remains on the decision making processes and social discourse in the equity crowdfunding context.

Equity crowdfunding is a relatively new form of entrepreneurial finance, however, the processes of legalization and strategic selection have been well researched in management literature. Owing to the explosion of equity crowdfunding activity and proliferation of platforms, I am looking into the equity crowdfunding multistakeholder dialogue at two levels. In the first two chapters of my dissertation, I analyze the role of discourse in the processes of legalization of equity crowdfunding as an industry as well as the diffusion of respective policies across the globe; in the third chapter I study the role of discourse in the ultimate funding success of equity crowdfunding campaigns. Below I describe the rest of the dissertation in more detail.

Chapter Two analyses the legalization process of equity crowdfunding in the United States. Researchers have typically focused on newly implemented crowdfunding regulations such as the JOBS Act in the U.S., yet scant attention has been devoted to why and how these regulations and policies are being implemented. This study is based on a comprehensive

archival dataset consisting of newspaper publications and government documents. I first seek to offer a deep understanding of how the social discourse resulting from negotiations between several disparate groups contributed to the ultimate legalization of equity crowdfunding. Furthermore, I propose that equity crowdfunding has become a public interest issue, and, consequently, the regulatory change resulted from the collaboration between multiple stakeholders including politicians and entrepreneurs, which is in stark contrast to the previously established normative view on industry change.

Chapter Three further examines how the policies and regulations focused on the promotion of equity crowdfunding have diffused from the United States to the United Kingdom, Canada, New Zealand, and Australia. Based on archival qualitative and statistical data, I demonstrate how entrepreneurs and politicians in favor of equity crowdfunding helped shape the regulatory environment of this emerging form of entrepreneurial finance. Drawing from the results of the qualitative analysis, I identify several conditions that were instrumental in the regulatory approval process of equity crowdfunding, such as the complementarity with the goals of key stakeholders. Additionally, I try to understand the reasons behind the cross-country differences in the diffusion processes concerning the timelines of the reforms and the patterns of social discourse on equity crowdfunding.

Chapter Four studies the process of investment due diligence and decision-making – the cornerstone of entrepreneurial finance. This chapter is based on live campaign discussions sections on of an equity crowdfunding portal over a 1-year window and aggregated investment and participation frequencies obtained from InsideTab (crowdfunding database). Using mixed-method content analysis, I examine the impact of investor communication on the outcome of equity crowdfunding campaigns. The results of this study indicate that discussions between investors and entrepreneurs matter for the success of equity crowdfunding and that evaluation criteria applied by investors evolve throughout a campaign.

Lastly, Chapter Five recapitulates some of the main findings and contributions, as well as indicates a few avenues for future research.

## **CHAPTER TWO – Democratization Makes Strange Bedfellows: The Legalization of Equity Crowdfunding**

### **ABSTRACT**

The digitalization of entrepreneurial finance has paved the way for new disruptive funding models such as platform-based equity crowdfunding. Owing to the interests of several disparate groups, the ensuing discourse leading to the ultimate legalization of equity crowdfunding has been a dynamic process involving many different stakeholders, which is a marked change from the closed-door sessions more commonly associated with securities regulations. Based on the analysis of a unique longitudinal dataset, I propose that digital crowdfunding and entrepreneurial finance, in general, have become a public interest issue, and therefore the opportunities and implications are more notable than previously depicted.

**Keywords:** Equity crowdfunding; entrepreneurial finance; new industry emergence; legalization

### **Introduction**

Equity crowdfunding is viewed by many as a powerful tool for advancing the field of entrepreneurship, especially for the vast majority of ventures not commonly supported by institutional investors, but there is also a public interest dimension at play in this context that is not normally considered within the realm of entrepreneurial finance. Owing to the less bounded nature of equity crowdfunding and the more diverse set of actors involved in the funding process, this new form of funding has redefined the role of agency in entrepreneurial finance (Nambisan, 2017). In recent years, digital equity crowdfunding has moved from the margins to the heart of entrepreneurial finance with equity crowdfunding platforms attracting

more than \$2.9 billion since 2010 (InsideTab, 2018). This rapid emergence of crowdfunding platforms, and the call for equity crowdfunding in particular, has been viewed as a disruption in the world of entrepreneurial finance (Mollick, 2014; Vulkan et al., 2016) and has prompted public and political debate regarding the role of crowdfunding and the applicability of the regulatory guidelines, which have historically been seen as safeguards with respect to entrepreneurial financing and securities.

Traditionally, the discourse surrounding securities regulations has concerned a limited scope of politicians, professional investors, and law experts but the digitalization of entrepreneurial finance has pushed the debate into the public domain and broadened the range of stakeholders involved in the process. Unlike the change of the “prudent man rule” in 1978, which only involved negotiations between the NVCA and a narrow circle of government officials, the legalization of digital equity crowdfunding has been a more dynamic and multi-stakeholder process. A key driver of this debate is the realization that the digitalization of new venture funding has provided public access to an arena typically reserved for professional or sophisticated investors. However, despite a general belief that these types of regulatory changes are socially constructed and that they result from negotiation and compromise between multiple interested parties (Gurses & Ozcan, 2015), minimal attention has been paid to the multi-stakeholder nature of the process itself.

Although entrepreneurship researchers were quick to recognize the potential significance of the democratization of entrepreneurial finance, early studies on crowdfunding have predominantly focused on issues related to the projects that are listed on platforms (e.g., benefits and outcomes) with little regard for the public dialogue and ensuing legal process that enabled platform-based crowdfunding to move from a niche activity supporting fringe projects to a viable funding source for all categories of ventures. Thus, we still lack an appreciation for the role played by key stakeholders including politicians, regulators,



incumbents, and entrepreneurs in the legalization of equity crowdfunding as an accepted practice (McKenny, Allison, Ketchen, Short, & Ireland, 2017) and are only now beginning to grasp the dynamics of the relationships among stakeholders and the associated implications, some of which are unexpected and run counter to prevailing views (e.g., Greenberg & Mollick, 2017).

Legalization is “the action of making something that was previously illegal permissible by law” (English Oxford Living Dictionaries, 2019). Legalization of any industry has been viewed in the literature as a fundamentally political process contingent upon the endorsement of various government agencies (Funk & Hirschman, 2014; Uzunca et al., 2018). Over the years, scholars have identified several important factors affecting the process and outcome of legalization (and prohibition) such as industry action and lobbying (Hiatt & Park, 2013; Lee, 2009), direct government intervention (Haveman, Russo, & Meyer, 2001; Yan & Ferraro, 2016) as well as pressure exerted by social movements (Hiatt, Sine, & Tolbert, 2009) and public media (King & Haveman, 2008). However, very few studies characterize the legalization as an endogenous, multistakeholder process shaped by the interactions between new market entrants, politicians, regulators, incumbent industry players and other interested parties (Georgallis, Dowell, & Durand, 2018).

Epistemologically, I build on the less established, interpretative approach that is being increasingly utilized in studies of entrepreneurship (Leitch, Hill, & Harrison, 2010; Nicholson & Anderson, 2005; Packard, 2017; Petty & Gruber, 2011). According to public interest theory, “regulation is designed to benefit society as a whole, [so] regulatory agencies typically maintain a dominant frame of serving the public interest (Pigou, 1932). The definition of what serves the public interest, however, can be open to interpretation” (Gurses & Ozcan, 2015, p. 1730). When viewed from the interpretivist standpoint, regulations are negotiated and socially constructed, and, may be affected by some institutional entrepreneurs, as is the case with other

institutions (Berger & Luckmann, 1966). The discourse surrounding these institutions is also socially constructed by a wide array of stakeholders, most notably media outlets such as newspapers (Gamson, Croteau, Hoynes, & Sasson, 1992). Thus, the rules and understanding of what constitutes “public interest” are the result of negotiations and discursive struggles.

Taking into account the previous research on new industry emergence and legalization, equity funding, and equity crowdfunding, in particular, I seek to address the following research questions using the interpretative stance:

1. How did the digitalization of entrepreneurial finance affect the relationship between traditional capital providers, government actors, and entrepreneurs?
2. How was equity crowdfunding legalized in the US in light of the digitalization of entrepreneurial finance?

Drawing from the campaign for the legalization of equity crowdfunding in the United States (U.S.), I contend that the passage of crowdfunding rules has been an outcome of an unanticipated collaboration between groups with very different, seemingly incompatible, objectives. The effective use of collective action and collaboration between the “crowdfunding movement” and key stakeholders (e.g., policymakers and investors) interested in supporting an increased level of entrepreneurship activity appear to have been instrumental in the legalization of crowdfunding as a new funding practice. Focusing on the negotiated nature of equity crowdfunding regulations allows me to contribute to the literature on entrepreneurial finance while adding to the nascent literature studying crowdfunding at the industry level and, more specifically, the policy issues related to crowdfunding (Dushnitsky, Guerini, Piva, & Rossi-Lamastra, 2016; Hornuf & Schwienbacher, 2017). The analysis of the public and political discourse reveals that the legalization of crowdfunding has become a matter of public interest and therefore, the implications of public policy on entrepreneurship

are much broader than previously depicted. Furthermore, countries with a public policy agenda designed to promote entrepreneurship are now faced with a new dimension of competition as a result of digitalization as the norms of new venture funding are challenged. The economic benefits of entrepreneurship and innovation are well established (Kirzner, 1997; Schumpeter, 1934), but those governments that are slow to react or that do not adapt their policies and regulatory regimes to the new digital reality may fail to retain or attract entrepreneurs and/or the growing segment of individual investors. However, I also highlight that the digitalization of equity crowdfunding may not provide the same measure of benefits to all of the stakeholders involved in the legalization process and that the proliferation of global funding platforms may result in unintended outcomes. While I discuss different types of crowdfunding in this study, my special focus is on equity crowdfunding as this form of crowdfunding was within the purview of securities authorities and required regulatory approval in the United States.

## **Literature Review**

### **Overview**

The funding of new ventures has a long and rich history but has only featured in the literature in recent decades following the formalization of entrepreneurial finance with the advent of the venture capital (VC) industry and ever-increasing levels of funding (Gompers & Lerner, 1999; Kaplan & Lerner, 2010). While early researchers were constrained by the quality of data recorded by hand in documents and stored in physical archives, the digitization of records and selected processes has afforded greater access and provided larger data sets across a range of investors. As research provided a greater understanding of the processes, decision-making criteria, and outcomes associated with VC investment, the scope of inquiry expanded to include corporate venture funds, business angels, and, more recently, platform-

based digital crowdfunding (Block, Colombo, et al., 2018; Drover et al., 2017). Yet, early digitization in and of itself did not markedly reshape the entrepreneurial finance industry, its dynamics, or outcomes as professional investors merely automated elements of the deal origination and evaluation processes.

### **Venture capital**

Despite funding no more than 0.25% of all new businesses (Kaplan & Lerner, 2017; Wright, Lumpkin, Zott, & Agarwal, 2016), research on VC investments has dominated the entrepreneurial finance literature over the past forty years. This interest is motivated, in part, because of the relative mystery concerning the inner workings of this holy grail of funding but also due to its long-term impact on economic development (Gompers & Lerner, 1999; Kaplan & Lerner, 2010; Timmons & Bygrave, 1986).

Since the inception of the VC industry in the late 1940s, VC firms have been managed as a business partnership by a team of professional investors who are considered value-added investors because they provide benefits beyond financing such as monitoring and governance, access to networks, and the professionalization of young companies (Gorman & Sahlman, 1989; Hellmann & Puri, 2002). The VC selection process involves a lengthy, resource intensive due diligence process, which may extend over many months, wherein a deal may be rejected at any stage due to a variety of reasons such as the characteristics of a market or VC firm investment focus, and the outcome is rarely positive with as few as 1-3% of deals being selected (Petty & Gruber, 2011). Moreover, VCs invest substantial amounts of money and expect a significant return on investment, typically resulting from an IPO or a trade sale (Gompers & Lerner, 1999).

In the early days, VCs focused on start-ups and seed-stage companies, but by the late 1990s they had shifted their attention to mid-stage and later stage deals, and more recently the

tendency has been to move towards later-stage investments (Hellmann & Thiele, 2015; NVCA, 2016). Regardless of the stage of the company, VC investing is inherently limited in scope to high-growth ventures in selected high-tech industries such as software, biotechnology, and the Internet (Denis, 2004; Ueda, 2004). Taken together, the VC industry can be characterized as an “exclusive club” with a limited number of investors interested in, competing for, and ultimately selecting very few deals possessing a specialized profile. Thus, many potentially productive but low-growth companies operating outside of these target industries do not qualify for VC funding.

### **Business angels**

The documented history of angel financing goes back centuries, as wealthy individuals backed a large number of emerging industries such as textiles, colonial trade and railroads (Landes, Mokyr, & Baumol, 2010), but the phenomenon of angel investing has received less scholarly attention, partly because of the scarcity of data (Mason, Botelho, & Harrison, 2016).

More recently, the BA market has evolved such that individual angels are joining forces to create BA groups or networks, and, correspondingly, provide a more considerable amount of capital to each deal (Carpentier & Suret, 2015; Mason et al., 2016). In the U.S. alone, according to The Center for Venture Research, BAs invested \$25 billion in startups in 2015 (The Center for Venture Research, 2015) and Mason, Botelho, and Harrison (2016) report that BAs “finance significantly more businesses than venture capital funds (VCFs), and at the start-up stage, the amount that they invest is also greater” (p. 322). Similar to VCs, BAs are also commonly perceived as value-added investors owing to the experience and advice they often provide and their access to commercial and investor networks. However, although many BAs do conduct a due diligence process that generally resembles that of VCs, the BA process is typically less onerous, and angel investors tend to reach an agreement with

entrepreneurs more quickly (De Clercq, Fried, Oskari, & Sapienza, 2006; Mason & Stark, 2004).

Unlike the trend among VCs, BAs continue to invest in seed and early-stage companies, with entrepreneurs receiving average investments as low as €185,000 per company (EBAN, 2016). BAs play an essential role in the entrepreneurial finance landscape, supporting companies that require smaller amounts of capital. However, many angels tend to prefer investing in companies that are close in proximity (Mason, 2007; Wong, Bhatia, & Freeman, 2009). Thus, even though there is an increasing number of angels investing in a broader range of companies, angels represent only about one percent of the population, so entrepreneurs living in regions without a significant presence of BAs do not have access to or benefit from this vital form of early-stage funding (Avdeitchikova, 2009).

## **Crowdfunding**

Equity crowdfunding via a digital platform is a relatively recent phenomenon, but the core underlying principle of private individuals or ‘the public’ providing cash for funding new ventures or projects dates back many years (Freedman & Nutting, 2015). The overarching term ‘crowdfunding’ includes four models of funding: (i) donation or charity crowdfunding, (ii) reward crowdfunding, (iii) peer-to-peer lending approach or crowdlending, and (iv) equity crowdfunding or crowd investing (Short, Ketchen, McKenny, Allison, & Ireland, 2017).

Whereas the early crowdfunding campaigns were typically launched more locally, philanthropic in nature, and focused on more creative (e.g., Pono Music, Coolest Cooler) or social (e.g., Saving the Local Theater, Spacehive) projects, the digitalization of crowdfunding is viewed by many as ushering in an unprecedented era of new venture funding. In 2015, only 12 years after the initial digitalization efforts, 539 crowdfunding platforms were operating in EU-15 countries (Dushnitsky et al., 2016) and the governments of many countries, including

the U.S., the United Kingdom (UK), Germany, and France have recently passed laws that allow the general public to invest via equity crowdfunding platforms (Jones, 2016; SEC, 2015; Torris, 2016). While the more traditional forms of crowdfunding have received little scholarly attention, the digitalization of platforms has generated a growing stream of literature with the majority of the extant literature primarily examining the determinants of crowdfunding performance and the investor's motivation and decision-making processes. However, despite gaining insights from early scholarly efforts (Belleflamme, Lambert, & Schwienbacher, 2014; Mollick, 2014), the understanding of the high-level parameters and the relevance of the context still remains incomplete (McKenny et al., 2017).

Regardless of the type of crowdfunding, the character of the crowdfunding platform “investor” is perhaps the greatest source of differentiation from other sources of new venture funding. Research has found that some contributors to equity crowdfunding campaigns, similar to traditional investors, do appear to be interested in the financial potential of a concept (Cholakova & Clarysse, 2015). However, unlike the more traditional forms of new venture equity finance, many supporters of reward-based crowdfunding projects participate for other more subjective reasons such as the “warm glow” effect – a positive feeling gained from helping others (Allison, McKenny, & Short, 2013), the focus on sustainability (Calic & Mosakowski, 2016), perceived product creativity (Davis, Hmieleski, Webb, & Coombs, 2017), or the entrepreneur's use of language that indicates accomplishment (Allison et al., 2013; Moss, Neubaum, & Meyskens, 2015).

The dynamics of a virtual environment and the one-to-many relationship between the entrepreneur and a multitude of potential investors dramatically influences the quality and type of due diligence that can be conducted, but there is evidence indicating that in equity crowdfunding context some level of vetting is taking place. Whether it is an entrepreneur's willingness to offer information related to risk, new funding sources and business development

processes (Ahlers et al., 2015; Block, Hornuf, & Moritz, 2018) or feedback provided by other investors (Hornuf & Schwienbacher, 2018; Mamonov, Malaga, & Rosenblum, 2017), measures to reduce information asymmetry are being initiated by players on both sides of the process.

How these publicly accessible digital platforms are actually affecting the entrepreneurial landscape is an area that has yet to be examined on a wide scale, but the initial results present a mixed picture. Cumming and Johan (2013) show that startups and entrepreneurs favor fewer restrictions with respect to equity crowdfunding versus investors who are inclined towards more extensive regulations. A campaign on a reward-based crowdfunding site may provide positive signals to professional investors (Roma, Messeni Petruzzelli, & Perrone, 2017). However, at a more general level, crowdfunding may also pose serious reputational risks and moral hazards as well as impact the social structures of firms, markets, and economic activity (Felin, Lakhani, & Tushman, 2017; Lehner, Grabmann, & Ennsgraber, 2015).

### **Collective action**

The emergence of new industries and practices has been studied from a wide variety of approaches, ranging from institutional theory to evolutionary economics and population ecology (Gustafsson, Jääskeläinen, Maula, & Uotila, 2016; Hoffman, 1999). Among those, the collective action perspective that builds on studies of social movements has generated a fruitful stream of research (Davis, McAdam, Scott, & Zald, 2005; Lee, Struben, & Bingham, 2018). The central premise of this perspective assumes that organizational fields, industries, and social movements are forms of coordinated collective action and, therefore, their behaviors follow similar consistent patterns (Zald & Berger, 1978).



The collective action perspective has been invoked in multiple associated but distinct contexts including resource mobilization (Hargrave & Van De Ven, 2006; Rosenbloom, Berton, & Meadowcroft, 2016), institutional entrepreneurship (David, Sine, & Haveman, 2013; Greenwood & Suddaby, 2006), and strategic action field theory (Fligstein & McAdam, 2012). However, regardless of their conceptual differences, each framework shares similar assumptions regarding the character of industry emergence. The analysis of industries such as TV broadcasting (Gurses & Ozcan, 2015), higher education (Kim et al., 2007), and retail business (Ingram & Rao, 2004) has demonstrated that, in general, institutional change is contentious in nature, and incumbents tend to defend their positions, status, and resources fiercely. Incumbents are often also endorsed by governments and regulators, parties that believe they will benefit from the status quo (Fligstein & McAdam, 2012). Thus, this stream of research has typically focused on the contestation of issues across various stakeholders as a mechanism of institutional transformation.

Social movement framing theory has firmly established itself as an essential part of the collective action perspective (Benford & Snow, 2000; Snow, Rochford, Worden, & Benford, 1986). This framing approach was initially characterized as somewhat stable mental scripts that organize life, and guide what is “in frame” and what is “out of frame” (Goffman, 1974). From the social movement perspective, framing “...involves the strategic creation and manipulation of shared understandings and interpretations of the world, its problems and viable courses of action” (Campbell, 2005, p. 49) and may be used by opposing groups to forge coalitions and alliances. Due to the diversity of views on the potential impact of equity crowdfunding, I employ a social movement framing perspective (Cornelissen & Werner, 2014; Gurses & Ozcan, 2015) in order to shed light on the underlying dynamics of collective action among stakeholders associated with the legalization process.

## **Regulations, legalization and industry emergence**

Regulated markets such as finance and healthcare constitute a large part of the world economy, and firms that introduce a new product into these sectors oftentimes need to receive government approval. In regulated industries, the success and long-term survival of companies and even whole industries largely depend on legal acceptance (Gurses & Ozcan, 2015). Accordingly, regulators wield enormous power over firms, especially over those in emerging business, which are yet to be considered as “justified and integrated into the prevalent institutional order” (Rao & Singh, 2001, p. 264).

Enacting any policy or changing regulations may be costly for government actors. It could incur direct financial costs such as in the case of Feed-In Tariff schemes (Georgallis et al., 2018) or potential political costs if the interests of powerful incumbents are threatened (Ingram & Rao, 2004). As policymakers need to engage with numerous stakeholders, they have to take into account how new market entrants relate to the interests of incumbents (Fligstein & McAdam, 2012; Hiatt & Park, 2013). Therefore, regulators tend to endorse those industries that have already demonstrated their potential viability and formed a “sensible organizational community” (Porac, Wade, & Pollock, 1999, p. 3). While persuading regulators is always problematic, it is arduous for firms operating in emerging industries as they are deprived of resources, connections, and legitimacy (Aldrich & Fiol, 1994).

In this study, I analyze the legalization of equity crowdfunding as a multistakeholder process resulting from collaboration from multiple parties. In order to better understand the dynamics of interactions between different stakeholders and analyze the social discourse on equity crowdfunding in detail, I draw both from the literature on new industry emergence and legalization as well as from social movement framing theory.

## Methods

In addition to leading the world of entrepreneurial finance in terms of new venture funding, the U.S. was the first country to thoroughly reexamine its policies and securities regulations in light of digitalization. Furthermore, the public campaign for the legalization of equity crowdfunding widespread public attention, which is unprecedented for such a specialized topic as securities regulations. Accordingly, this study centers on the legalization process of equity crowdfunding in the U.S.

Being interested in understanding how “the social meaning” of crowdfunding was constructed and negotiated in the public sphere, I required access to data that provided insights into several stakeholders’ views, objectives, and concerns. Past research has shown how media coverage and the public discourse, in general, not just represent but also construct the social reality of a particular situation (Gamson et al., 1992), thus, the data were collected from newspaper publications and transcripts of hearings in the U.S. Congress and the Security and Exchange Commission (SEC).

In order to track the societal level discourse on crowdfunding and the support for entrepreneurship, I chose three of the most widely circulated and respected U.S. national daily newspapers: The New York Times, The Wall Street Journal and The Washington Post. These broadsheet newspapers cover business and political news, and their circulation is widespread throughout the country. Equity crowdfunding was legalized in the U.S. in 2012, and the formal rules were introduced in 2013, so in order to capture the press coverage leading up to the legalization of equity crowdfunding, I conducted an extensive search of articles published between 2008 and 2013 using LexisNexis. I analyzed the subset of national and regional

newspapers<sup>1</sup> using the word “crowdfunding” both as the search and index term. While several of these newspapers provided some coverage of the emerging debate, The New York Times (51 articles), The Washington Post (40 articles), and The Wall Street Journal (32 articles) provided the most comprehensive coverage of crowdfunding, much of which was syndicated across other outlets. One regional newspaper from the Bay Area in California, The Mercury News, also provided extensive coverage of the on-going debate, but this data were not included in the analysis in order to avoid “regional bias” (Earl, Martin, McCarthy, & Soule, 2004) given that the readership is primarily based within California.

Data related to the legalization process of equity crowdfunding in the U.S. were collected from the transcripts of testimonies and hearings of the U.S. Congress and the SEC as well as other types of government documents devoted to the legalization of equity crowdfunding such as press releases. The hearings preceded the official adoption of the new regulations in two stages between September 2011 and December 2013. During the first stage, the JOBS Act, which included a crowdfunding provision, was passed by Congress and signed by the U.S. President on April 5, 2012. During the second stage, the SEC was working on the specific rules and regulations devoted to equity crowdfunding. Table 2 provides an overview of the main events and themes with respect to the emergence of crowdfunding movement and the broader macroeconomic environment in the US. Looking into these processes allowed me to study the arguments and counterarguments on equity crowdfunding as well as strategies leveraged to endorse equity crowdfunding. Altogether, newspaper articles and transcripts of hearings generated approximately 120,000 lines of text.

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<sup>1</sup> The New York Times, The Wall Street Journal, The Washington Post, The Mercury News, The Denver Post, USA Today, The Tampa Bay Times, The Philadelphia Inquirer.

Collectively, this longitudinal data set provided a detailed account of the legalization process of equity crowdfunding and the essential arguments used by the advocates and opponents of equity crowdfunding. Thus, it allowed for the identification of the prevailing themes and changing nature of key relationships that proved instrumental in the acceptance of crowdfunding.

### **Data analysis technique**

The data were analyzed using qualitative interpretative methods to unveil the themes present in the public discourse on crowdfunding (Corbin & Strauss, 2008; Gioia, Corley, & Hamilton, 2013; Leitch et al., 2010). Given the paucity of research on the higher-level antecedents of crowdfunding (McKenny et al., 2017), the coding frame was developed from an inductive standpoint. In the first step, I utilized “open coding” to identify initial categories (Corbin & Strauss, 2008); a process that involves simple descriptive coding. Once the preliminary coding structure was established, the data were recoded using axial coding where a researcher searches for relationships between and among these categories, which facilitates assembling them into higher-order themes (Corley & Gioia, 2004). Finally, similar themes were grouped into higher-level dimensions, which served as a basis for the ultimate framework. Developing the final framework entailed constant comparison between the codes, which resulted in the subsequent creation of new codes or the division, combination, or abolishment of the original codes. The complete list of categories and sub-categories is presented in Table 3. A more detailed discussion of the framework will be provided in the following section.

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The original text was copied verbatim, with the transcription ranging from excerpts as brief as a single phrase to complete paragraphs. The authorship of a message (e.g., a journalist, an investor, or a politician) was retained to identify the major players in the debate. The vast majority of the coded text contained enough relevant information to be grouped within one of the categories, and some of the text contained multiple themes or messages that required the use of more than one category. The iterative analysis process continued until additional analysis did not generate any further insights, which signified that the point of theoretical saturation had been reached (Corbin & Strauss, 2008).

Great care was taken to increase the validity or “trustworthiness” of the coding (Lincoln & Guba, 1985). The data were first stored and managed using NVivo so that each passage of text, code, or another relevant piece of evidence was preserved. Second, I used peer debriefing and discussed the initial categories and emergent coding frame with other researchers who were not directly involved in the study, and solicited critical questions regarding the data collection and analysis procedures to get an outsider's perspective (Corley & Gioia, 2004). Finally, an experienced qualitative researcher reviewed the data analysis procedure, the development of the coding scheme, and the resulting conceptual categories.

## **Findings**

A few dominant themes in the frames utilized by both the opponents and promoters of crowdfunding emerged as a result of the analysis. Not surprisingly, several narratives reflecting the interests and objectives of investors and entrepreneurs surfaced in the public discourse while a more conservative or cautionary narrative appeared in the political and regulatory arenas. As the reform's advocates attracted more attention and dominated the narrative throughout the debate, I begin with the frames used to legitimize digital equity crowdfunding. Afterward, I analyze the frame that reflects the views of the opposition.

Contrary to what parties on either side of the issue may have originally envisioned, there was one narrative that garnered support from even the most stalwart skeptics in the political ranks and fostered collaboration among stakeholders - the “public interest” frame.

I located “power quotes” giving voice to participants in the body of text, whereas “proof quotes”, which aimed to describe codes in more detail (Pratt, 2008), are contained in Table 5. The descriptive statistics representing coding frequencies are reported in Table 4.

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**Public interest frame**

During the campaign for the legalization of crowdfunding, the narrative of public interest was primarily raised by politicians – Congressmen and Senators – and, less notably, by pro-crowdfunding activists. This frame played a significant role in convincing policymakers to reexamine the securities regulations. My interpretation of the narrative indicates that this discourse primarily concentrated on three themes: jobs, the state of the economy, and democratization.

**Jobs:** The issues of job creation and unemployment were omnipresent during the campaign for the legalization of crowdfunding. Policymakers also believed that too much bureaucracy limited the ability of startups to hire new workers. Members of Congress such as Spencer Bachus problematized the situation by stating that jobs are not being created partly because of the “red tape”:

We cannot wait for the SEC to act when millions of Americans are out of work and small businesses can't access capital because of outdated regulations. Small business

accounts for the majority of new jobs created in the U.S. The Committee took action today and passed common-sense ideas that will promote jobs (*JOBS Bills Pass*, 2011).

Crowdfunding was widely publicized as one of the tools to rectify this problem. The logic behind this narrative was based on the following premise: “Small companies create jobs. The easier it is to fund a small company, the more jobs there will be. Federal rules make it harder for start-ups to raise capital. Ergo, relax the rules” (“Start 'em up,” 2012). Some politicians actively endorsed equity crowdfunding proclaiming it “a powerful new venture capital model” (*Spurring Capital Formation*, 2011). For others, supporting the crowdfunding bill, and, more generally, the pro-entrepreneurship JOBS Act was also a way to “turn the corner in an election year” (Weisman, 2012). The crowdfunding activists also leveraged the frame of job creation by providing some evidence of how equity crowdfunding might benefit spurring the job market: “I think we will get the capital flowing based on our projections so we can create 500,000 companies over the next five years and employ 1.5 million jobs -- (inaudible) jobs” (*Connecting Investors and Job Creators*, 2011).

**The state of the economy:** The issue of the economic slowdown was deeply ingrained in the U.S. politico-cultural context in the 2010-2012 period. Both unemployment and the response to the global recession were major elements of the 2012 elections campaign. Barack Obama, the winning candidate, announced the intention to introduce the JOBS Act, which later included the provision on crowdfunding and received bipartisan approval in Congress. The advocates of crowdfunding claimed that the legalization of equity crowdfunding would create more jobs and boost the economy, which once again, spans the boundaries of entrepreneurship and becomes a “public” issue. This focus on the societal level of benefits, as well as the upcoming elections, partly explains why equity crowdfunding became a part of the “bigger picture” about jobs and economic development. Both crowdfunding activists and



politicians contended that it was in the public interest to legalize equity crowdfunding platforms as bolstering employment and the economy are society-level concerns.

We all know, and predictably our economy has grown to a near halt in certain respect. And every economist will tell you that many entrepreneurs are looking to the banks. But they know that there's really no money to be had for a lot of the start-up businesses....So with that change, we need to change some of the rules and regulations that are prohibiting those types of opportunities. So I'm bringing this bill forward. This is called Crowd Funding (*Spurring Capital Formation*, 2011).

**Democratization:** In addition to the “anemic job market” (Weisman, 2012) and economic slowdown, the proponents of crowdfunding believed that their efforts would democratize entrepreneurial finance and make the industry less elitist. Democracy has been a significant part of political discourse in the U. S. for a long time, and, as such, frames of democracy and “civil rights” have frequently been leveraged by social movements and interest groups (Creed, Scully, & Austin, 2002; McCammon, Muse, Newman, & Terrell, 2007). In a similar vein, the champions of crowdfunding framed the institutional configuration as problematic due to the lack of access for the general public:

It is ironic that thousands of people were able to invest money into scams like that perpetrated by Bernie Madoff (predominately through experienced and licensed financial advisors) yet they are prevented from making their own decisions about putting a fraction of that same money to use in a community startup (*Small Business Investment Barriers*, 2011).

The supporters of crowdfunding reasoned that many companies that have the potential to create new jobs, but lack collateral or possess few prospects of providing “a 10X return in the shortest period of time” (*Connecting Investors and Job Creators*, 2011) are largely

unnoticed by institutional investors. This issue was not only a problem for entrepreneurs but was also a public issue. A lack of new companies due to finance elitism resulted in the absence of new jobs, and, as a result, led to the “tragedy in American innovation” (*Connecting Investors and Job Creators*, 2011). Consequently, according to entrepreneur Steve Case, the U.S. could become less appealing to entrepreneurs and “lose its entrepreneurial strongholds” while “other nations are stepping up their game” (“Case: We could lose entrepreneurship,” 2012).

### **Advancing the field of entrepreneurship frame**

**Spur entrepreneurship:** Crowdfunding devotees often offered projections of how legalization would spur entrepreneurship, with estimates ranging from 1,000-2,000 businesses funded by a leading platform such as Seedrs annually in the UK to a rather optimistic 500,000 new companies per year in the U.S. Additionally, they envisaged many benefits for entrepreneurs beyond financing. Firstly, crowdfunding would allow entrepreneurs to engage with the local community and convert social capital to financial capital: “Beyond the money...it (crowdfunding) connected us to the community, got our name out -- and engendered good will” (Collins, 2011).

Secondly, another expected benefit of crowdfunding was related to the connection between entrepreneurs and the market. This connection with a more extensive and more diverse set of players could take a variety of forms such as market validation and increasing customer loyalty through transforming them into investors. The advocates of equity crowdfunding believed that funded companies would obtain a “built-in base of customers who were strongly motivated to help the brand succeed” (“Should Equity-Based Crowd Funding Be Legal?,” 2012) due to their “vested interests” in a business. Some of the experts such as venture capitalist Michael Greeley remarked that crowdfunding “will resonate most with

people who get the product” that is, “people who are trying to buy securities in these companies will really want to be buying the product” (Mandelbaum, 2012).

Lastly, several people have argued that crowdfunding would significantly enhance the relationship between entrepreneurs and investors, particularly from an entrepreneur’s perspective. The proponents of crowdfunding have stated that it will make this relationship more transparent, and, also, entrepreneurs would gain access to “tens of millions more potential investors” (“Should Equity-Based Crowd Funding Be Legal?,” 2012). Furthermore, the legalization of equity crowdfunding would eliminate “interfering investors who second-guess them and demand higher prices for higher returns” (Collins, 2011) or, in other words, switch the role of agency in entrepreneurial finance by giving entrepreneurs more control over their ventures (Nambisan, 2017).

**Enhance industry dynamics:** The impact of digitalization on the funding landscape appears to be double-edged. Some pro-crowdfunding activists and entrepreneurship researchers have asserted that, due to its mass appeal and open access, crowdfunding is “fundamentally disrupting finance” (Mollick, 2014; *Small Business Capital Financing*, 2013; Vulkan et al., 2016). The advocates of these beliefs asserted that the “invasion” of micro-investors might supplant business angels and early-stage VCs and force them to compete for high growth, potentially lucrative deals.

However, the mounting evidence suggested that, contrary to these claims, crowdfunding may actually provide a more robust pipeline of deals for professional investors. Less sophisticated investors participating in equity crowdfunding campaigns do not provide the same value-added services, and raising substantial amounts of money is still challenging. Some activists have even called crowdfunding “the breeding grounds for the VCs and the private money” (*Connecting Investors and Job Creators*, 2011).

Hence, even though the increase in funding options for entrepreneurs may disrupt the industry status quo, there appears to be an opportunity for conventional investors such as VCs to identify more deals, better gauge market acceptance, and gain greater standing by providing follow-on funds.

### **Funding frame**

**Bridge the funding gap:** The core strategy of the crowdfunding movement rested on the notion of highlighting the problems associated with the slowdown in entrepreneurial activity, which was to a larger extent attributed to a widening funding gap. In the wake of the 2007-2008 financial crisis, the supply of investment capital from VCs was dramatically reduced. In 2009, total venture investment decreased 37% in dollars, and 30% in the number of deals from 2008 (NVCA, 2010) and the search for funding became more demanding for seed- and startup stage companies as capital markets reoriented toward mature companies. As gaining access to and qualifying for both equity and debt financing became an arduous task, more than 50% of small enterprises relied on credit cards and other bootstrapping activities.

However, the champions of crowdfunding did not just attribute the problems to the shrinking market for the initial funding of new ventures, which started to gain momentum again after 2010. Professional investors depend on successful exits in order to generate their target returns on investment, but opportunities on public markets had all but disappeared when the crowdfunding debate first entered the public domain. During the 2008-2009 period, less than twenty VC-backed firms successfully had an IPO (NVCA, 2010), which further exacerbated the market conditions for equity investors. Acknowledging the importance of new venture funding and the potential for profitable exits, several high-profile supporters of equity crowdfunding platforms such as Barack Obama planned to “cut away the red tape that

prevents too many rapidly growing startup companies from raising capital and going public”  
(*Connecting Investors and Job Creators*, 2011).

**Supporting lower potential ventures:** Throughout the campaign, the way equity crowdfunding was presented and discussed created a narrative of providing early-stage funding to deals that were largely neglected by institutional investors: small deals for smaller companies at the early or seed stage or with lower growth potential. More generally, they criticized the fundamental institutional configuration of entrepreneurial finance, which is highlighted by Sherwood Neiss:

Try going into a bank to get a loan or a line of credit, try finding a credit card company that will give you a decent interest rate, or try pedaling your idea to venture a private equity. They aren't focused on who will create the majority of net new jobs, but who has the greatest chance for a 10X return in the shortest period of time  
(*Connecting Investors and Job Creators*, 2011).

The proponents of crowdfunding envisioned smaller levels of funding, ranging from \$50,000 to \$250,000 as their sweet spot, funding amounts that are largely below the thresholds of institutional investors who target opportunities requiring greater investment amounts. Crowdfunding could support the underserved majority of entrepreneurs by providing seed funding to startups and small companies that often do not promise a significant return on investment, which is the primary objective of professional investors:

“Whereas banks evaluate the success of a loan solely on full, timely repayment at the market interest rate, the community may consider an investment successful if they recoup their principal, feel the pride of being a part of something, and get exclusive perks” (*Small Business Capital Formation*, 2011).

## **Criticisms of the crowdfunding frame**

From the outset, the campaign for the legalization of crowdfunding faced criticism from investor protection groups such as the North American Securities Administrators Association. This opposition was not strong enough to stop the JOBS Act from being passed, but sufficient to forestall the implementation of the SEC rules. This criticism or, counter-frame, was twofold: the primary arguments attacked the implementation and oversight of equity crowdfunding and focused on the issues of fraud and investor protection. A second, relatively minor, the volume of criticism challenged equity crowdfunding as a fundamentally bad idea.

**Fraud, risk & protection:** The critics of equity crowdfunding argued that allowing unsophisticated investors to invest in startups would run counter to the interests of the general public because new companies are notoriously risky. In addition, the liberalization of rules could result in fraud and unchecked fundraising activity, as opportunistic salespeople would exploit the crowd's lack of expertise. This fear was captured in Prof. John Coffee's comments:

Let me sketch what I think will happen under this bill. A character vaguely resembling Danny DeVito who may have been -- who may have been barred for life from the securities industry, now, enters the field as an unlicensed salesman. He sets up shop in bar room, flips open his laptop on the bar or the Starbucks counter and begins showing glossy PowerPoint slides to customers of allegedly high-growth companies (*Spurring Capital Formation*, 2011).

However, I find that this type of criticism did not challenge the legalization of equity crowdfunding as a concept, as many had expected. Rather than block the legislation, it led to

the review and revision of particular provisions in the legislation, which resulted in a significant delay of the SEC rules.

**Criticism of the idea:** Some experts, however, challenged the notion of equity crowdfunding on a more fundamental level. Primarily, they worried that amateur crowdfunders would not bring much value beyond money and that it would result in funding potentially unproductive entrepreneurship. In general, according to the opponents of crowdfunding, there are more clever ways to raise funding for entrepreneurs: “Let's start with a basic issue: Yes, small businesses need capital. But they need a lot more than that. And by focusing simply on capital, equity-based crowdfunding would rob small companies of access to everything that traditionally comes with capital” (“Should Equity-Based Crowd Funding Be Legal?,” 2012). Such criticisms challenged the fundamental idea of equity crowdfunding. However, due to relatively low visibility in the public debate, namely newspaper coverage, its impact on the process of legalization of equity crowdfunding was rather limited.

## **Discussion**

Based on the analysis of the crowdfunding legalization process, I propose that the process of industry emergence and regulatory approval may be, for certain scope conditions, less conflictual than believed. Drawing from the social movement literature on framing (Benford & Snow, 2000; Snow et al., 1986), I argue that new market entrants may gain the support of governments and reduce incumbent opposition by invoking the “public interest” frame. Secondly, I suggest that challengers may face less criticism from incumbents by framing their initiative as a new complementary “niche” instead of circumventing or completely replacing the incumbent industry norms and practices.

The previous research on industry emergence and regulatory change states that appealing to the public interest is a potentially effective strategy for new players seeking

change in regulated markets (Gurses & Ozcan, 2015; Ozcan & Gurses, 2018). By invoking this narrative, challengers claim that new technology and/or product promotes the public good. In regulated markets, where positions of incumbents are particularly robust and protected by regulators, “finding the right coalition partners among other market players ... as well as in the public and institutional sphere...who can help construct and diffuse an alternative frame of public interest is a crucial step in winning the framing contest” (Gurses & Ozcan, 2015, p. 1731).

Internal governance units – actors that “...are charged with overseeing status quo in the field” (Fligstein & McAdam, 2012, p. 17) in general, are extremely conservative, which is an additional reason why institutional change is virtually impossible without pressure from external fields. In general, incumbents tend to control the majority of resources. Shared understandings are fashioned and institutionalized, and internal governance units are there to reinforce the dominant perspective. In the case of equity crowdfunding, these regulations had to be developed by the SEC, which acts as the internal governance unit for the field of entrepreneurial finance. The exogenous shock came from the coalition of entrepreneurs and politicians who challenged the existing understanding of entrepreneurial finance. Nevertheless, despite pressure from Congress, the SEC was very reluctant to change and adopt the specific rules on crowdfunding. Thanks to the power of this multi-stakeholder coalition and the fact that the U.S. Congress has precedence over the SEC, equity crowdfunding regulation was ultimately passed. However, even though the crowdfunding bill was approved relatively quickly compared to other significant reforms, it still took more than 18 months to design and implement specific regulations on crowdfunding.

I find that the proponents of crowdfunding utilized the public interest frame and, in doing so, addressed three critical issues: jobs, the state of the economy, and democratization. By leveraging this frame, the crowdfunding interest group was able to win over critical



institutional actors – Senators and Congressmen – and put the legalization of crowdfunding on their agendas. More importantly, crowdfunding became part of the more general solution that aimed to tackle economic slowdown and unemployment. Recruiting allies among Congressmen was instrumental in passing pro-crowdfunding regulation, and thanks to the perceived role of “public interest”, few critics fundamentally challenged the concept of digital platform-based equity crowdfunding. However, the crowdfunding interest group also needed to mobilize supporters within the field of entrepreneurial finance – entrepreneurs and investors.

Members of the crowdfunding movement fashioned and leveraged the collective action frame “Advancing the field of entrepreneurship” to gain support within the field of entrepreneurship. This frame was instrumental in recruiting allies among entrepreneurs and, to some extent, investors. However, regarding the latter, social movement theory predicts that incumbents would oppose innovation if they believe that it may endanger their positions. While Fligstein and McAdam (2012) subscribe to the social movement theory assumption concerning the prevalence of conflict, they nevertheless indicate that sometimes it is possible to avoid confrontation by finding “a niche in the strategic action field where incumbents will not go” and then “work toward complementarities” (p.98).

In the case of equity crowdfunding, the impact of the “Funding” frame was twofold: first, the supporters of crowdfunding claimed that this new form of financing has a potential to bridge the funding gap. Obviously, this framing is aligned with the goals of incumbents of entrepreneurial finance, VCs, and BAs, as they are primarily interested in the development of the entrepreneurship ecosystem, and, subsequently, the supply of new deals. However, they may have challenged the emerging digital equity crowdfunding model if it promised to affect their positions as dominant players. Conversely, platform-based equity crowdfunding was framed as a funding mechanism that had significant potential, but which primarily targeted a

market segment previously representing the majority of deals, unoccupied by these major players. Thus, the “challenging” collective action frame was aligned with the goals and interests of incumbents. While simultaneously not threatening their privileged statuses, institutional investors and crowdfunding activists realized the significant potential for complementarities, and therefore, incumbents endorsed the passage of pro-crowdfunding regulation (NVCA, 2015).

Finally, I see clear parallels between the legalization of equity crowdfunding and other innovations such as initial coin offerings (ICOs), which “constitute a novel mechanism for funding highly innovative ventures that use distributed ledger technology” (Fisch, 2019, p. 1). Both ICOs and equity crowdfunding serve the interest of key entrepreneurship stakeholders, namely entrepreneurs and investors as they provide a viable alternative to established sources of financing. Both innovations have brought into question the relevance of existing securities regulations. Similar to equity crowdfunding, governments of several countries such as Switzerland and Singapore have already introduced favorable measures to compete with other jurisdictions for international ICO entrepreneurs, while others such as China have banned fundraising using ICO completely. It is still early to definitively say whether ICOs are sustainable initiatives, which may bring long-term economic benefits or, rather, transient fads. Time will tell if many other countries relax their regulations in light of ICO as well as the movement for the adoption of ICO-friendly regulations gains global status as in the case of equity crowdfunding.

## **Conclusion**

This unique longitudinal dataset enabled me to conduct one of the first studies that analyzes how the digitalization of entrepreneurial finance emerged within the context of crowdfunding platforms. Adopting a social movement framing perspective revealed how the

nature of relationships between key stakeholders was affected and how selected actors were leveraging the public interest frame in support of the legalization process of equity crowdfunding in the U.S.

### **Contributions to research**

Drawing on the social movement framing theory (Benford & Snow, 2000; Cornelissen & Werner, 2014), I show that the legalization of crowdfunding was a negotiated process that required the collaboration of multiple stakeholders, and I demonstrate how the proponents of equity crowdfunding leveraged collective action frames to secure support for their model of new venture financing. In particular, I claim that framing equity crowdfunding as a public interest phenomenon, which simultaneously promotes the public good while advancing the field of entrepreneurship at the same time, was instrumental in the legalization of crowdfunding. More generally, concerning extant research on crowdfunding, this study raises the unit of analysis from individual decision-making to the industry-level of collective action.

I also contribute to the studies on new industry emergence and legalization (Georgallis et al., 2018; Lee, 2009; Sine & Lee, 2009). I argue that the process of industry emergence and legalization may be less conflictual than usually assumed for a certain scope of conditions. First, leveraging the “public interest” frame may reduce the level of opposition to a new industry or product and gain the support of government actors. Correspondingly, emergent frames that draw from the discourse of high-status government actors are more likely to become public interest frames. Second, if new market entrants create a new sub-industry or a niche that is complementary, rather than threatening the norms and practices of the incumbent industry, they are less likely to face opposition from incumbents and, contrary to the normative view, develop a collaborative relationship, which may ultimately result in the legalization of a new sub-industry. Finally, by demonstrating the important role played by the

multistakeholder collaboration behind the legalization of equity crowdfunding, I contribute to the emerging multistakeholder perspective on the studies of legalization and policy change (Georgallis et al., 2018; Uzunca et al., 2018).

Lastly, I also offer a contribution to the social movement framing literature (Benford & Snow, 2000; Cornelissen & Werner, 2014; Snow et al., 1986). While the normative view in the literature assumes contestation between incumbents and the proponents of a new industry or organizational form, an emerging perspective proposes that incumbents and challengers may engage in collaboration. In addition to other factors conducive to the collaboration such as the creation of an intermediary organization that were already described in the literature (O'Mahony & Bechky, 2008), I propose that framing a new initiative in a way, which complements the interests of government actors and incumbent industry players, may trigger the collaboration from the outset.

### **Policy implications**

This study has several potential policy implications, having demonstrated increased public interest in both crowdfunding and entrepreneurship in general. First, the digitalization of entrepreneurship and new venture financing poses particular challenges for governments. Governments need to show a certain level of flexibility regarding rules and regulations concerning entrepreneurship; otherwise, they may face a risk of losing a new generation of entrepreneurs who are becoming increasingly more international. Institutional environments that are too rigid may prompt entrepreneurs to launch digital funding platforms in other countries, as was the case with Seedrs, which was started in the UK as opposed to the U.S. because of the latter's rules.

Second, governments of multiple European countries and the European Commission have been promoting an agenda of cross-border investment via crowdfunding platforms. This

might be somewhat contradictory to the initial framing of crowdfunding as a tool for domestic job creation. Interestingly, according to CrunchBase data (2017), 14% of successfully funded projects on Crowdcube are located outside of the UK. In the long term, more crowdfunding liberal countries may end up facilitating the funding of foreign companies that create jobs elsewhere, in countries without crowdfunding platforms or vibrant entrepreneurial finance ecosystems.

Additionally, there are potential downsides of a more liberal approach to equity crowdfunding. First, governments need to ensure that platforms are not utilized for money laundering and the financing of illicit activities. Given that equity crowdfunding platforms provide unprecedented access to deals across the globe, “investors” operating out of tax havens and less regulated countries may find ways to exploit this open market. Further research is required to determine if greater measures might be necessary to ensure that unscrupulous investors do not take advantage of the democratization of new venture finance.

### **Limitations and further research**

There are several limitations of this study. First, the time frame of the study excludes the period when the SEC was working on the regulations that would allow the general public to invest via equity crowdfunding platforms. This was motivated by the focus on the stage of emergence rather than institutionalization. Second, I was primarily interested in framing and collective action, and correspondingly, I focused on the political backdrop of the story. The legal discourse on equity crowdfunding is a potentially interesting research direction, but it is outside of the scope of the current study. The third limitation of this study is the concentration on one national setting. I have chosen the U.S. because the campaign for the legalization of equity crowdfunding served as a trigger for similar movements around the globe. Nevertheless, further studies are needed to achieve theoretical replication of the results (Yin,

2009). The fourth limitation of the study is its heavy reliance on archival data. Using archival data reduces the risk of hindsight biases and respondent subjectivity. However, I had to rely on written evidence, and as a result, I might have ignored some essential unrecorded information, which I could have otherwise obtained from interviewing stakeholders such as politicians or entrepreneurs at the forefront of the crowdfunding movement in the US who played a significant role during the legalization process. It might be of interest to interview these stakeholders in a follow-up study. Finally, due to the focus on the political background of the legalization, I primarily concentrated on Congressional hearings and national news, while social media blogs on crowdfunding received scant attention. Given that the role of social media in the political process increases rapidly, I suggest authors of future studies make better use of the data from social media platforms.

Crowdfunding activity continues to grow year-on-year, but little is known about the relationship between equity crowdfunding and other sources of funding such as VCs and BAs. Despite some claims that crowdfunding is a threat to traditional capital providers (Vulkan et al., 2016), growing evidence suggests that institutional investors actively participate in equity crowdfunding campaigns and some of these campaigns are led by VCs (Invesdor, 2017; "Professional investors join the crowdfunding party," 2017). In addition, there has been little systematic research focused on the role of crowdfunding in the entrepreneurship ecosystem. Further research is needed to analyze whether crowdfunding has been narrowing the funding gap as hoped and, if so, which types of ventures are benefiting from these digital platforms that may be poised to revolutionize entrepreneurial finance. Interestingly, despite the potential global reach of digital campaigns, the majority of funding has thus far come from domestic investors, although some campaigns are attracting overseas investors (Guenther, Johan, & Schweizer, 2017), albeit increasingly from countries not typically associated with equity funding such as the British Virgin Islands and the United Arab Emirates (Crowdcube, 2016).

Thus, understanding the pace and profile of cross-border crowdfunding investment, as well as the character of these international investors, relative to more traditional forms of investing, is a potentially fruitful research area that calls for scholarly attention.

## **CHAPTER THREE – The Diffusion of Equity Crowdfunding Across the Globe**

### **ABSTRACT**

Affecting regulation is difficult for any firm, but it requires strenuous efforts for those operating in emerging industries. In this study, I seek to understand the complex process through which equity crowdfunding has become legalized in four Commonwealth countries following the passage of equity crowdfunding regulations in the US. I use extensive archival data to analyze how social discourse, as well as the institutional environment, has made an impact on governmental regulatory decisions concerning the new model of venture finance. I find that the legalization of equity crowdfunding is a complex process shaped by firms' interactions with various interested parties, especially regulators and other relevant state actors. Based on the analysis, I propose several conditions, which may increase the probability of legalization, one of which is complementarity with the goals of key stakeholders. This study contributes to the literature on equity crowdfunding, new industry emergence and legalization, as well as to a broader stream of research on policy diffusion.

**Keywords:** Entrepreneurship, new industry emergence and legalization, equity crowdfunding, policy diffusion

### **Introduction**

Digital, platform-based crowdfunding emerged in the late 2000s, and the United States quickly became a thriving market for online fundraising: in 2012, Kickstarter – one of the significant U.S. crowdfunding platforms – received more than 2.2 million contributions totaling up to nearly \$320 million. However, the equity-based form of crowdfunding was initially snubbed by U.S. regulators. In June 2011, the U.S. Securities and Exchange Commission (SEC) imposed a cease-and-desist order on the creators of BuyBeerCompany.com website who collected more than \$200 million in pledges in return



for the future ownership of the company shares. Despite the fact that the concept of Internet fundraising had already gained marked prominence among entrepreneurs and consumers, the BuyaBeerCompany.com campaign was shut down as it infringed securities regulations at that time.

As this example shows, acceptance of a new product or industry by key stakeholders involved in a particular market does not necessarily happen simultaneously with legal acceptance. In regulated markets such as finance, companies also need to receive legal approval, which is a fundamentally political process dependent upon the endorsement of government actors (Funk & Hirschman, 2014; Ozcan & Gurses, 2018). In newly established markets and industry segments such as alternative energy, scholars have demonstrated that regulation has a significant impact on the process through which new products come to market and gain regulatory acceptance (Russo, 2001). For new product or industries, which are yet to gain “the right to be taken for granted” (Aldrich & Fiol, 1994, p. 653), overcoming those regulatory hurdles is a process fraught with problems.

Scholars interested in the legalization of emerging industries have addressed the issue of regulatory change from multiple theoretical standpoints such as social movement perspective (Lounsbury, Ventresca, & Hirsch, 2003; Pacheco, York, & Hargrave, 2014; Sine & Lee, 2009) and corporate political strategy (Bonardi, Hillman, & Keim, 2005; Bonardi, Holburn, & Bergh, 2006; Hansen & Mitchell, 2000). Despite wide variance in the approaches these authors have taken, I find some common patterns in the literature. Generally, government agencies are treated as “...indistinguishable and static, and focused on reinforcing existing policies for institutional maintenance purposes” (Ozcan & Gurses, 2018, p. 1793). It is oftentimes assumed that all government actors, such as politicians and regulators, will be in agreement, which is not always the case (Ozcan & Gurses, 2018). Consequently, as state actors have been considered to be rather homogeneous and reactive,

scholars addressed other determinants of regulatory support such as pressure exerted by social movement organizations or industry associations (Pacheco et al., 2014). Very few scholars have examined the legalization as an endogenous process (Georgallis et al., 2018), or, in other words, as the outcome of “...firms’ interaction with various category audiences, with particular attention to the perspectives and actions of regulators and other relevant state actors” (Ozcan & Gurses, 2018). In line with the literature on categories (Durand & Paoella, 2013; Navis & Glynn, 2010; Paoella & Durand, 2016), I view regulators and politicians as audiences that pursue their goals and respond to emergent categories according to their preferences. However, government actors do not come to a judgment in a vacuum; their interpretations result from interactions with key stakeholders such as incumbent firms, new market entrants, and consumers (Uzunca et al., 2018).

Another important aspect of legalization is the diffusion of legal innovations from other countries, which are perceived to be more advanced. Governments have been shown to learn from experiences of “other states that have dealt with similar problems, and their leadership may draw on successful “alters” (Weber, Davis, & Lounsbury, 2009, p. 1323). Governments should perceive another country as its peer for the diffusion take place. In many cases, states aim to adopt similar policies or regulations that were already implemented by their more successful rivals.

In this study, I analyze the adoption of equity crowdfunding regulations in the UK, Canada, Australia, and New Zealand. To better understand the legalization processes and analyze the mechanisms of diffusion, I draw both on new industry emergence and legalization literature as well as on the studies of policy diffusion.

Because I am theoretically interested in social discourse and the dynamics of multistakeholder engagement, I conducted a qualitative study. Based on archival data

including 311 news articles, more than 1350 pages of government documents, and supplementary data from such sources as Global Entrepreneurship Monitor, Doing Business Report, and CB Insights, I uncovered how the four aforementioned Commonwealth countries responded to the much-publicized passage of the JOBS Act in the United States.

The findings reveal that while the 2008-2009 economic downturns and the reduction in the supply of new venture funding created an opportunity for such innovations as crowdfunding, these countries' politicians have responded to its emergence differently. In particular, their policies were affected by governments' perceptions of the role played by entrepreneurship in boosting national competitiveness, as well as by the pressure exerted by politically active industry associations and other high-profile institutional actors such as ministers and members of parliament. I also outline other factors contributing to the overall government stance on equity crowdfunding, including levels of institutionalization and competition in the field of entrepreneurial finance, overall institutional and infrastructure quality, and government policy towards the sharing economy. Altogether, the findings unveil that the diffusion of equity crowdfunding regulations has been a highly political, multi-actor process contingent upon the congruency of crowdfunding with policymakers' and other stakeholders' goals and "theories of value" (Georgallis et al., 2018), as well as nationwide socioeconomic dynamics.

## **Literature review**

### **Regulation and industry emergence**

I characterize studies analyzing the impact of regulations and government policies on emerging industries according to the attributed impetus of regulatory change. These are social movements and NGOs, lobbying and industry associations, as well as direct regulatory intervention. Additionally, I depict an emerging, audience-based view, which synthesizes

findings of the above-mentioned approaches along with recent studies of the cognitive categorization processes (Georgallis et al., 2018; Ozcan & Gurses, 2018; Paoletta & Durand, 2016). Lastly, I provide an overview of the studies of policy diffusion, which are frequently used to analyze the adoption of new policies and regulations across the globe (Henisz et al., 2005; Simmons et al., 2006; Simmons & Elkins, 2004)

### **Social movements**

Emergent industries are characterized by a smaller number of organizations, some degree of categorical ambiguity, low legitimacy, and unsettled power dynamics (Aldrich & Fiol, 1994). A newly formed group of firms most likely has not yet established favorable relations with government actors and does not possess enough resources to engage in lobbying.

However, companies operating in emerging industries may be endorsed by grassroots or society-wide campaigns if a new industry targets an issue of public interest and is framed as a solution to societal problems. If an issue is perceived as salient and a campaign is successful, then social movement backing may eventually change the institutional environment in favor of emerging categories, and enable regulatory support from policymakers (Davis et al., 2005; Hargrave & Van De Ven, 2006; Pacheco et al., 2014). Large scale coalitions such as the environmental movement in the U.S. have spawned new industries, underpinned their political and legal infrastructures, and encouraged entrepreneurship in new sectors (Sine & Lee, 2009). Social movements may also have a more indirect effect on regulatory change. For example, the grassroots movement for recycling has facilitated the ascension of a for-profit recycling industry by transforming general public socio-economic practices, and, ultimately, shaping related policies (Lounsbury et al., 2003). In a similar vein, the temperance campaign delegitimized alcohol consumption and catalyzed

the Prohibition in the United States at the beginning of the twentieth century. These social changes created a demand for alternative beverages resulting in the rise of the soft drink industry (Hiatt et al., 2009). Thus, social activism is instrumental in mobilizing support for emerging industries and market categories, which tackle burning social issues.

### **Industry action and lobbying**

While nascent firms often need to rely on support from civil society organizations, companies in more established industries possess the necessary power and resources “to seek new or to maintain existing policies that affect their current business operations or future opportunities” (Bonardi et al., 2005, p. 397). Companies allocate vast resources and effort to impact the regulatory environment of their industries through lobbying and direct financial contributions (Choi, Jia, & Lu, 2015; Jia, 2014). In doing so, they often mobilize various groups such as industry associations that exert pressure on regulators. Organic food producers, for instance, relied on standard-based certification organizations to bring about changes in U.S. state laws (Lee, 2009). In another case, genetically modified food (GMO) producers enlisted support from powerful farm associations and government agencies to obtain GMO approval from the United States Department of Agriculture (Hiatt & Park, 2013). Firms may also form political associations to influence the repeal or enactment of laws against rival market categories (Ingram & Rao, 2004). Overall, in order to affect regulatory regimes, firms resort to a broad spectrum of political strategies and tactics such as lobbying, engaging with interest groups, and constituency building (Hillman & Hitt, 1999; Shaffer, 1995).

### **Regulatory interventions**

Whereas the previously described line of thought emphasized a crucial role of companies in regulatory change, regulators can also act “exogenously to intervene and create

industries” (Georgallis et al., 2018, p. 26). Government intervention may positively impact organizational founding rates in emerging industries by designing policies that would ultimately reduce risks for new entrants (Russo, 2001; Sine, Haveman, & Tolbert, 2005). Additionally, governments may facilitate the emergence of new categories by adopting new general policies that are not directly related to the industry in question. For example, the Chinese government focus on sustainable development was instrumental in preserving the socially responsible investing (SRI) niche in China (Yan & Ferraro, 2016), while changes in competition rules helped shape the early railroad industry in Massachusetts (Dobbin & Dowd, 1997). Dramatic changes in government regulations can also cause shifts in existing organizational domains and top management team composition, and in extreme cases, a complete disruption of an industry (Haveman et al., 2001; Wade, Swaminathan, & Saxon, 1998). All in all, this research stream has portrayed regulations and policies as determined externally. Moreover, regulators and other government actors sometimes “exogenously pick an industry to support because it is consistent with their goals” (Georgallis et al., 2018, p. 26).

### **Audience-based approach**

Category research is an established theoretical approach for studying how market and political stakeholders or, in other words, audiences react to industry changes (Georgallis et al., 2018; Vergne & Wry, 2014). In general, “categories represent a meaningful consensus about some entities' features as shared by actors grouped together as an audience” (Durand & Paolella, 2013). To gain the support of any market audiences, new categories must demonstrate congruency with their theories of value (Paolella & Durand, 2016, p. 1100). Audiences or stakeholder groups may comprise consumers, government agencies, investors, and civil society organizations (Hsu, Hannan, & Koçak, 2009). Regulatory categories may be remarkably different from market categories because broader audiences may alter their preferences rapidly, whereas regulatory categories tend to remain on the books for an

extended period of time even if their taken-for-granted status is being questioned (Funk & Hirschman, 2014). Additionally, regulatory categorization, the process “which sets legal limitations on the production and sales of products” (Ozcan & Gurses, 2018, p. 1789) has been shown to “differ from product categorization through the asymmetrical power structure among different regulatory category audiences due to the critical role of state actors” (ibid., p. 1791) such as regulators. While regulators wield enormous power in their respective industries, their legitimacy also depends on the opinion of other government actors, interest groups as well, and, to some extent, the general public (Bonardi et al., 2006). For example, companies may appeal to public opinion and elected politicians in order to revise regulation in their favor. In some other cases, as a new industry grows in prominence, government actors gradually recognize the need for the regulatory change and introduce some regulatory measures (Georgallis et al., 2018).

Overall, regulatory categorization or legalization has been viewed in the literature as a highly political, multistakeholder process the outcome of which is shaped by the dialogue, or, sometimes, a contest, between regulators and regulated firms, but also involves other category audiences (Ozcan & Gurses, 2018).

### **Diffusion**

The normative pressure exerted on peer social groups by more prominent social actors and resulting in isomorphic changes is one of the cornerstones of institutional theory (DiMaggio & Powell, 1983; Meyer & Rowan, 1977). Studies have looked at the isomorphic processes within organizations, industries as well as at the cross-national level (Guler, Guillén, & Macpherson, 2002; Haveman, 1993; Honig & Karlsson, 2004). A smaller body of research within this literature has analyzed the role of global institutional pressure in policy adoption (Simmons et al., 2006; Weber et al., 2009). Scholars have documented the global diffusion processes of numerous policies and institutions ranging from public stock exchanges

and the central bank independence principle to more general policies focused on environmental protection (Polillo & Guillén, 2005; Simmons & Elkins, 2004; Weber et al., 2009). The imitation may happen for a variety of reasons, but one of its prerequisites is “equivalence in networks” (Burt, 1987) between two actors. The peer relationship may result from geographical proximity as well as from extensive trade and diplomatic relationships, shared historical heritage, as well as similar legal systems (Guler et al., 2002; Weber et al., 2009). These shared structural positions set a particular “competitive frame of reference” (Burt, 1987), which causes governments “to be tuned to peers` job performance” (Guler et al., 2002).

Scholars have observed multiple mechanisms by which international policies may diffuse such as coercion, competition, learning, and emulation (Simmons et al., 2006; Weber et al., 2009). Among these, learning and competition are especially helpful for studying policies related to emerging innovations, which have not fully gained normatively appropriate status yet such as equity crowdfunding. The competition mechanism has been described in the literature as adopting a policy to gain “advantage relative to competitors, or to avoid a disadvantage” (Weber et al., 2009, p. 1324). While the competition oftentimes implies a mechanical adaptation of the innovation implemented by the peers, the learning mechanism of diffusion emphasizes adaptive learning. That is, governments engaged in learning draw on both successful and unsuccessful experiences of their peers. While it is difficult to define a clear-cut difference between the competition and learning diffusion mechanisms, due to its emphasis on adaptive learning, the learning approach has been shown to be more successful in the adoption of new policies and regulations (ibid.).

In this study, I draw both from the literature on industry emergence and policy-making as well as from the studies of policy diffusion to investigate the legalization of equity



crowdfunding across four Commonwealth countries – the United Kingdom, Australia, Canada, and New Zealand.

## **Methods**

### **Case selection**

I wanted to study how the passage of the JOBS Act in the United States influenced the legalization of equity crowdfunding in other countries. The evidence from multiple cases is usually more robust because it allows a researcher to replicate results across cases or predict contrasting results based on a theory. The replication principle of multiple case studies is based on the same logic as multiple experiments (Yin, 2009).

I chose four Commonwealth countries as the sample: The United Kingdom, Canada, Australia, and New Zealand. I have selected this sample based on the principles of theoretical sampling (ibid.). In short, these countries provide a fertile ground for studying the diffusion of legal innovations originating in the United States. The reasons for the theoretical relevance of my selection are the following. The diffusion literature stipulates that in order for a policy diffusion to happen, governments of a country in questions should perceive another country where innovation originates as its peer or competitor (Weber et al., 2009). Countries are more likely to be in each other`s “competitive frame of reference” if they possess strong network ties as indicated by extensive diplomatic relationships, trade ties, close intergovernmental cooperation, shared historical and cultural background, and geographical proximity (Guler et al., 2002; Weber et al., 2009), which holds for my sample.

In addition to the factors described as well as common legal traditions and language, the United Kingdom, Canada, Australia, and New Zealand countries are also early adopters of other entrepreneurship-related innovations originating in the U.S. such as venture capital (Black & Gilson, 1998; Lerner, 2010; Lockett & Wright, 2002), academic entrepreneurship

(Grimaldi, Kenney, Siegel, & Wright, 2011; Mowery & Sampat, 2004), and entrepreneurship education (Kuratko, 2005; Matlay, 2008; Matlay & Carey, 2007). Because other U.S.-originating innovations focused on the promotion of entrepreneurship have been enthusiastically received by the sample countries, it is reasonable to expect that the passage of the JOBS Act would naturally draw a very positive reaction. Yet, as I will demonstrate later, the diffusion process was more complex than initially envisaged due to the variation in institutional environments as well as different preferences of politicians and other stakeholders.

As I was interested in how the legalization of crowdfunding was discussed and negotiated in the public sphere, I began the analysis with newspapers. More specifically, I selected the most widely circulated and respected national and regional newspapers in each of the four countries. To ensure that the coverage of crowdfunding from these sources was comprehensive, I conducted a systematic search of articles published between 2011 and 2014 using LexisNexis and Europresse. These dates were chosen because the U.S. discussion on equity crowdfunding started in late 2010, and the JOBS Act was passed in 2012, so I wanted to study the articles that followed these events. I analyzed the subsets of newspapers and online news agencies using the word “crowdfunding” both as the search and index term. I found that UK sources provided the most extensive coverage (130 articles), followed by Canadian (61 articles), Australian (65 articles), and New Zealand (55 articles) sources. Additionally, I also analyzed government documents pertaining to the legalization of crowdfunding such as regulatory consultation papers, responses of interested parties to the proposed regulation on crowdfunding and transcripts of parliamentary hearings.

I triangulated the findings from newspapers and government documents against the additional macroeconomic data such as the GEM Global Entrepreneurship Monitor statistics,

Doing Business Report, CB Insights, and other sources on the government policy on entrepreneurship. Please refer to Tables 6, 7, and 8 for an overview of the sources I used.

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[[Please insert Tables 6, 7, and 8 about here]]  
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Altogether, the newspaper articles, government documents, and country-level additional statistics provided a detailed account of the legalization of equity crowdfunding, themes prevailing in the media and political discourses on crowdfunding as well an overview of the macroeconomic context in the United Kingdom, Canada, Australia, and New Zealand. These materials contained the essential arguments used by the proponents and opponents of equity crowdfunding. Thus, these data present a rare opportunity to study how equity crowdfunding was legalized and institutionalized in multiple countries and how these countries responded to the much-publicized JOBS Act in the United States.

### **Data analysis and initial findings**

In order to reveal the issues present in the public debate on crowdfunding, the text data were analyzed using qualitative interpretative methods (Corbin & Strauss, 2008; Gioia et al., 2013; Leitch et al., 2010). Since in a previous study (Iurchenko & Petty, 2018) I analyzed the discourse surrounding the JOBS Act campaign, it was unrealistic not to expect certain common themes. However, I adapted the coding scheme as I progressed, since interpretive epistemology encourages emerging and more nuanced understanding. With regard to newly uncovered themes, I used “open coding” to establish initial categories (Corbin & Strauss, 2008), which involves simple descriptive coding followed by axial coding where researchers look for relations among these categories and assemble them in higher order (Corley & Gioia, 2004). Developing the framework involved constant comparisons between the codes, which resulted in new codes being created, or original codes being divided, combined and abolished.

The original text was copied word for word, with the transcripts ranging from short excerpts to complete paragraphs. I kept track of the authorship of a message (e.g., a journalist, an investor, or a politician) to identify the prominent participants in the debate. Most of the coded blocks of the text had sufficient pertinent information, which could be grouped into one category and some of the sections contained several themes or messages that required more than one category. The iterative process of analysis continued until further examination gave no further insight, which marked the point of theoretical saturation (Corbin & Strauss, 2008).

I have made every effort to assure the “trustworthiness” of the coding (Lincoln & Guba, 1985). The data were stored and managed using NVivo to preserve each passage of text, code, and other relevant information. In various phases of the analysis, I used peer debriefing and talked with several researchers not directly involved in the study about the initial categories and the emerging coding frame and requested critical questions concerning data collection and analysis methods to gain an outsider's perspective (Corley & Gioia, 2004).

### **Country-level characteristics**

In 2007-2008, the supply of capital from venture capitalists for entrepreneurs was significantly reduced around the globe. In some countries representing the sample, the value of venture capital investment diminished very substantially. For example, in 2009, the amount of venture capital in the UK decreased to one-third of that in 2007. Australian startups received only 23 million dollars in funding as compared to 169 million in 2009. In Canada, the funding trend was somewhat inconclusive as the number of deals has steadily increased since 2003, only facing a slight pullback in 2008. New Zealand, in turn, had not attracted much funding for entrepreneurial ventures before 2007 but was strongly affected by the 2008 crisis as well.

In addition to the actual funding gap, there was also a perceived crisis captured in the Global Entrepreneurship Monitor studies. Between 2008 and 2010, all four countries faced a downward trend in “Venture capital availability” and “Financing through Local Equity Market,” and the UK scored the lowest. However, both perceived and actual entrepreneurial activity did not decrease during the crisis, as evidenced by a more or less constant rate of new business creation and the GEM indicator “Total Early-stage Entrepreneurial Activity.” Thus, the economic downturn did not reduce the willingness to start a business, and all the countries represented in the sample had business-friendly and transparent institutional environments. However, in the UK, Australia, and New Zealand, there was not enough available capital. Thus, an opportunity for a new early-stage source of financing arose.

### **The course of reform in the countries**

In this chapter, I will characterize the processes that have led to the legalization of equity crowdfunding in the United Kingdom, Australia, Canada, and New Zealand. Generally speaking, I find that the process of legalization of equity crowdfunding included parliamentary hearings, public consultations with various stakeholders such as industry associations, legal experts, and investors, ultimately leading to regulatory change. While I found that in all of the countries the legalization involved similar stakeholders, the process evolved according to the priorities and interests of politicians as well as depending on their understanding of the role of entrepreneurship in boosting national competitiveness.

Tables 9 and 10 describe the main events related to the process of regulatory acceptance of equity crowdfunding. The legalization process, as well as the social discourse surrounding the legalization of equity crowdfunding, was initiated in the United States. However, the United Kingdom was the first country in this study to legally accept fundraising activity on equity crowdfunding platforms.

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[[Please insert Tables 9 and 10 about here]]  
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## **United Kingdom**

From the very beginning, the United Kingdom took a leadership position in equity crowdfunding. Crowdcube – a British equity crowdfunding platform – emerged as early as 2011, and, was also one of the first equity crowdfunding platforms in the world. Initially, the regulation of equity crowdfunding was very liberal in Great Britain. In particular, the activity itself was not prohibited, but each platform had to be authorized by the regulator. So-called "unsophisticated" investors could invest a limited amount of funds as well.

The movement for better regulating equity crowdfunding was endorsed by most of the relevant stakeholders ranging from founders of crowdfunding platforms to British Treasury executives and Members of Parliament. Despite some heated debates concerning the distinction between “sophisticated and unsophisticated” investors among the Financial Conduct Authority and Labour MPs such as Barry Sheerman, the regulator supported the reform. One of the biggest victories of the “crowdfunding movement” was the extension of very generous tax breaks to equity crowdfunding, which made investing on crowdfunding platforms very attractive. Overall, since 2013, the UK has become a global leader in equity crowdfunding, hosting three out of five of the world’s biggest platforms. In fact, according to the founder of Seedrs – the fourth biggest platform in the world – the company was established in London and not in the U.S. precisely because of the former’s more permissive crowdfunding regulations.

## **Australia**

Australia can be placed on the other side of the spectrum regarding the liberal approach to equity crowdfunding. Donation-based crowdfunding was not prohibited from the

outset, but equity crowdfunding was not permitted. Despite the lobbying efforts of entrepreneurs, investors and the Corporations and Markets Advisory Committee, equity crowdfunding was only legalized in 2017, and the first platforms were licensed as late as 2018. As a result, in 2017, the amount of funding raised by Australian equity crowdfunding platforms accounted for as little as 1% of the global equity crowdfunding funding volume.

### **New Zealand**

The close competitor of Australia, New Zealand, has been more successful in equity crowdfunding due to its more liberal securities regulations. New Zealand seemed to be further advanced in equity crowdfunding in comparison with Australia, as the crowdfunding rules were passed as early as 2014 and the first operators were already licensed the same year. As a result, despite its smaller market size and a very modest amount of financing for entrepreneurs in general, in 2017, equity platforms attracted more funding in comparison to their Australian counterparts.

### **Canada**

The legalization process was slowed down by the country's complexity regarding securities regulations as Canada did not have a central regulator. Consequently, each province passed its own rules, with Ontario being the first in 2013, but only that province's residents were allowed to invest. The harmonization of equity crowdfunding regulations across the country is expected in 2020.

The debate on the legalization of equity crowdfunding in Canada was sparked by the well-publicized JOBS Act campaign in the U.S., as well as by the departure of some high-profile entrepreneurs such as the founder of Pebble, Eric Migicovsky. The emigration of entrepreneurs and even "the brain drain to the U.S." was a recurring theme in Canadian discourse; the narrative was frequently repeated by the lobbyists of equity crowdfunding such

as the Canadian Advanced Technology Alliance. The crowdfunding reform faced some opposition from securities regulators and investor protection groups. Due to the regulatory complexity, so far equity crowdfunding has not been very successful in Canada, and only a handful of platforms are operating in selected provinces such as Ontario.

### **Discursive themes**

As I proceeded with the analysis of the textual data – newspapers and government documents, I began to grasp the narratives utilized by the proponents and opponents of crowdfunding. Not surprisingly, I captured several themes already uncovered in a previous study of equity crowdfunding discourse (Iurchenko & Petty, 2018). Some of these narratives featured in the public debate represented the interests of entrepreneurs and investors, while regulators provided a more critical account of equity crowdfunding reforms. A few of the themes were somewhat similar across the sample, while a newly uncovered narrative of “National competitiveness” varied according to the national specificities and priorities of policymakers. Please refer to Figure 2 for a general overview of the themes and to Table 11 for a more detailed description of the “National competitiveness” coding category.

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[[Please insert Table 11 and Figure 2 about here]]  
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### **Criticism of crowdfunding theme**

From the beginning of campaigns for the passage of pro-crowdfunding regulations, critical reactions were quite prominent in all four countries. The criticism was twofold and focused on the following aspects of the upcoming reforms: Fraud, risk, and investor protection as well as the concept of equity crowdfunding itself. I begin with the former narrative, which was somewhat more pronounced in the data.



**Fraud, risk, and investor protection.** The premise of this argument, forwarded by critics of equity crowdfunding, was that allowing less sophisticated investors to invest will significantly increase risks and the probability of fraud. The essence of the fear is well captured in the testimony of Advocis, The Financial Advisors Association of Canada: “The combination of less stringent regulation in crowdfunding and neophyte entrepreneurs and investors will result in allegations of misrepresentation and fraud” (Advocis, 2013). Despite its significant presence in the public discourse, this form of criticism did not fundamentally challenge the idea of equity crowdfunding but instead focused on the risks associated with its implementation.

**Conceptual criticism.** Conceptual criticism was less widespread in the debate and was virtually nonexistent in Australia. In general, it primarily called into question the possible consequences of equity crowdfunding such as unproductive entrepreneurship, the minimal value it would bring for entrepreneurs beyond money, as well as the negative impact it may have on a business in the long-term by making it uninvestable. According to an investor from New Zealand, “While crowd-funding delivers dollars, it can make it more difficult for the entrepreneur to get the business off the ground as there are no knowledgeable lead investors and their support networks at the table” (Duff, 2013). Some experts such as Canadian Professor Jeffrey G. MacIntosh questioned “the wisdom of the crowd” itself arguing that from the “Dutch tulip bulb mania to the Credit Crisis of 2008, crowd-driven behaviour has authored some of the worst meltdowns in human history” (Macintosh, 2013). However, this type of scathing criticism was not overly voiced in the debate on equity crowdfunding.

### **Support for equity crowdfunding**

Despite the criticism highlighted in the previous chapter, the crowdfunding reform was widely supported by different stakeholders across all four countries. Similar to the

previous study (Iurchenko & Petty, 2018), I encountered themes representing the interests of investors and entrepreneurs such as "Funding" and "Advancing the field of entrepreneurship", as well as the "Public interest" narratives. I also uncovered the "Competitiveness" narrative, which did not play a significant role in the previous study.

### **Advancing the field of entrepreneurship**

**Spur entrepreneurship.** The supporters of equity crowdfunding asserted that, in addition to providing funds, it would help entrepreneurs to further develop and test their ideas along with connecting entrepreneurs to the market. Additionally, equity crowdfunding would help to eliminate less productive ideas quickly as "Even ideas that aren't deemed worthy enough to get funding are worth testing, because you will have saved yourself a whole bunch of time finding out it wasn't a good idea and getting smarter faster" (O'Carroll, 2013).

Secondly, according to its devotees, equity crowdfunding would turn investors into customers and advocates, and, more generally, enhance entrepreneurs' relationships with investors. According to The National Crowdfunding & Fintech Association of Canada (NCFCA Canada), equity crowdfunding platforms "would standardize, professionalize and streamline communications and interactions between investors and SME issuers", while crowd investors would become "avid supporters, marketing representatives and connectors", who "will contribute to the success of their investment, manufacturing and distribution planning activities" (NCFCA Canada, 2013).

**Enhance industry dynamics.** While making it easier for entrepreneurs to start and run the business, equity crowdfunding, its supporters argued, would also benefit other entrepreneurship stakeholders such as investors who would gain access to a broader pool of deals. A Canadian technology commercialization agency MaRS stated that "The ability for investors (or their advisors) to see a larger variety of early-stage investment opportunities that

they wouldn't be able to access elsewhere without significant effort was a key benefit" (MaRS Discovery District, 2013) of equity crowdfunding.

In a similar fashion, crowdfunding would reduce the risks and strengthen positions of smaller investors. The focus on minority investor's rights protection is well highlighted by Jeff Lynn, the founder of British platform Seedrs:

"That's critical. Otherwise, you'll have a business that becomes successful and no one's looking out for the minority investor's interest - you'll end up with some horrible dilution event. We'll manage and protect [small investors'] rights. Other [crowdfunding] platforms are stuck in the situation of being much more hands-off" (Hurley, 2012a).

In addition to "Increasing the supply of new deals" and "Strengthening the positions of investors," I also revealed other narratives focused on the benefits for investors and other stakeholders. Most notably, the proponents of equity crowdfunding argued that it would complement BAs (business angels) and VCs (venture capitalists) in the startup financing cycle, but also that crowdfunding would help positively transform the entrepreneurial finance industry in the long term.

### **Funding narrative**

**Bridge the funding gap.** The most direct benefit of equity crowdfunding, according to its supporters, would be in providing funding for companies and, therefore, bridging the funding gap. This apparent lack of funding was attributed to several reasons, one of them being the perceived unfriendliness of banks to startups:

"The fact is that start-ups have the most difficulty in getting money from the conventional banks. Very often, the banks have failed them, because start-ups have no

track record and no history; consequently, banks are very cautious about lending money to them” (*Crowdfunding and the FCA*, 2013).

Equity crowdfunding would be in particular useful for very early-stage companies, which are not yet qualified for funding from VCs or BAs. In other countries, such as Australia, equity crowdfunding might be the only option for entrepreneurs willing to raise funding “as funding by business angels and venture capital firms is close to nonexistent” (Tompkins, 2013).

In addition to providing funding for startups, equity crowdfunding was often portrayed as a golden opportunity for smaller investors, who were frequently downplayed by larger investors. According to the founder of Crowdcube – a very successful equity crowdfunding platform, it used to be “very hard to invest £500 of equity in a private company” because “a business angel network would laugh you out of the door” (Hurley, 2012b). In summary, the proponents of equity crowdfunding described it as a tool for leveling the playing field for those early-stage companies, which typically found it harder to receive funding from incumbent investors, as well as for smaller investors underrepresented in well-established financial institutions.

### **Public interest narrative**

**Economy and jobs.** This narrative, which I considered to be crucial in the legalization of equity crowdfunding in the U.S. (Iurchenko & Petty, 2018), played a significant role in the four countries as well. However, I did not encounter a lengthy discussion about jobs in the sample; instead, the debate was mainly focused on economic development as a whole. In Australia and Canada, I located a narrative built around how the legalization of equity crowdfunding would spur regional development and entrepreneurship outside of large urban centers:

“[C]rowdfunding may help eliminate the geographical boundaries of capital formation—a major consideration in a country as large as Canada with a dispersed population. Entrepreneurs outside of Canada’s large urban centres may find in crowdfunding a means to financing startups that local banks would never support” (Advocis, 2013).

More generally, equity crowdfunding was portrayed as a means to address economic slowdown and unemployment, which are, undoubtedly, the society-level concerns. This sentiment is expressed by a New Zealand politician, the Labour MP David Parker:

“[W]ould we not let them invest that through crowdsource funding in something that could grow the prosperity of our country and bring the jobs and innovations that we need to prosper as an economy and to create job opportunities for the young people?” (*Financial Markets Conduct Bill*, 2013)

**Democracy and transparency.** In addition to the economy and jobs, the narrative of democracy and transparency provoked a heated discussion, in particular, in the UK and Canada. In the UK, a motion to remove the investor sophistication requirement resonated with a profoundly ingrained labour political tradition. The Labour MP Barry Sheerman problematized the situation by stating that the sophistication requirement is unfair to everyday investors:

“The FCA suggests that only “sophisticated” investors should have access to crowdfunding; in other words, those who have a relatively high net worth. That kind of language makes me nervous, because it is insulting to ordinary people, suggesting that they do not know how best to invest a little bit of money” (*Crowdfunding and the FCA*, 2013).

In Canada, in addition to a previously mentioned concern about democratizing investment, equity crowdfunding was portrayed as an effective way to tackle the burning issue of female and minority underrepresentation in finance: “Crowdfunding holds enormous potential to allow women entrepreneurs access to capital by allowing them to monetize their social networks” (Charlesworth & Ania, 2013). According to MaRS, equity crowdfunding offered considerable potential for immigrant entrepreneurs that have a hard time accessing funding from traditional sources (MaRS Discovery District, 2013).

### **Country competitiveness**

Another narrative that was prominently featured in the public debate was focused on how passing pro-equity crowdfunding regulations would enhance a country’s competitiveness. In general, according to policy diffusion literature, boosting national competitiveness is one of the main reasons for policy adoption (Simmons et al., 2006; Weber et al., 2009). Based on the themes in the discourse and previous research, I distinguished between two different government stances on this issue. The first position in which equity crowdfunding was portrayed as a tool that would allow a country to nurture entrepreneurial leadership ambitions, was primarily shared amongst the United Kingdom and New Zealand, and to some extent by Canada. This position also displayed the learning component of policy adoption, especially in the case of the UK. The second one featured a more conservative position according to which a government should adopt similar policies to those of other countries in order to mitigate various negative trends such as the emigration of entrepreneurs. This attitude was shared by Australia, and, partly, by Canada.

The premise of the British standpoint was that the U.S. had passed very restrictive regulations on equity crowdfunding, and, hence, made it very difficult for equity crowdfunding platforms to operate: “If we play it right, the UK is likely to become the centre

of crowdfunding in the world, partly because the United States, in its haste to regulate crowdfunding, has, many argue, strangled the baby at birth” (*Crowdfunding and the FCA*, 2013). Due to these perceived mistakes in the U.S. crowdfunding policy, and the fact that some platforms were established in the UK because of its more liberal regulations, the government made it very clear that it was the ambition of Great Britain to secure its status as the global crowdfunding hub: “UK has a strong global position in crowdfunding investment...I am keen to ensure that we maintain and grow that position” (*Crowdfunding and the FCA*, 2013). In general, British stakeholders emphasized that the UK should learn from both positive and negative experience of the US and adopt a more permissive regulatory stance to secure the competitive advantage for Britain on the equity crowdfunding market.

Similar to the United Kingdom, the New Zealand entrepreneurship stakeholders were quite ambitious regarding the country’s potential to become “a hub for start-ups seeking crowdfunding in the Asia-Pacific region” (Pullar-Strecker, 2013). They maintained that with their financial regulations being at the forefront of world practice, New Zealand would have the capacity to be ahead of Australia and other countries of the Asian-Pacific region in equity crowdfunding. In general, both the UK and New Zealand presented a proactive, globally focused narrative on how further stimulating equity crowdfunding would enhance their national competitiveness. Both of them highlighted the need to move beyond the mimicking of the regulations adopted in the US.

Contrary to the global perspective of Great Britain and New Zealand, the Australian discourse was much more focused on how the legalization of equity crowdfunding would help address the local issues such as the emigration of entrepreneurs and the “brain drain”: “By not having a developed Crowd Sourced Equity Funding structure there are obvious detrimental outcomes” (Ward, 2013). One of the most obvious problems mentioned in the discourse was the emigration of high-tech, high-growth focused entrepreneurs to other countries such as the

United States. Additionally, the position of Australia was more reactive in the sense that the proponents of equity crowdfunding urged government officials to adopt measures similar to those of other countries, rather than to strive to become a financial regulations trendsetter: “the Australian Government should follow the lead of the United States and New Zealand and establish a framework for the regulation of CSEF in Australia” (Abrahams & Johns, 2013). In general, Australian stakeholders indicated the need to copy the best legal practices available, rather than innovating and moving ahead of other countries.

The Canadian standpoint in the debate on equity crowdfunding was in-between proactive and reactive. Similar to Australia, Canadian stakeholders aimed to imitate the more advanced with respect to crowdfunding countries, in particular, the United States: “This is an idea we should be studying now in Canada, because if it takes off in the U.S., we should have the ability to allow it here too” (Immen, 2012). Additionally, equity crowdfunding was also viewed as one of the tools to rectify issues hurting the national competitiveness such as the emigration of entrepreneurs because of the lack of funding: “We see growing evidence that U.S.-based portals are approaching early-stage companies in Ontario with the aim of drawing them to relocate to the U.S. to take advantage of their services and improve their access to capital” (MaRS Discovery District, 2013). However, the discourse on the securities reform in Canada was also featuring themes on how equity crowdfunding would help Canada to become a world leader in entrepreneurship and the financing of entrepreneurial activity:

“In addition to raising more capital for more Canadian businesses, a progressive and vibrant crowdfunding regime will also make Canada more attractive to innovators and their businesses from other jurisdictions – strengthening our ability to compete in the fast-moving global innovation economy” (MaRS Discovery District, 2013).



Thus, the Canadian discourse on equity crowdfunding and national competitiveness was somewhat balanced between the very pro-active stance of Great Britain and New Zealand and the more conservative standpoint of the Australian government and regulators.

**Overview of findings**

The analysis of the legalization processes across the United Kingdom, Australia, Canada, and New Zealand shows that all four governments and other stakeholders were ultimately supportive of equity crowdfunding. However, the timelines of the reforms and the way in which the new financial innovation was portrayed in the public discourse were not identical. One of the surprising findings is that, unlike in Australia and Canada, national competitiveness was not mentioned frequently in the discourse on equity crowdfunding in the UK and New Zealand, which is displayed in Table 12. Based on the analysis of data, I attribute this relatively low prominence of competitiveness in the public debate to the almost unanimous support received by the notion of equity crowdfunding. In the UK, the majority of stakeholders, including regulators, were well disposed to the idea from the outset, and few issues could spark a heated debate. There were scarcely any voices questioning the vital role of equity crowdfunding in boosting national competitiveness. As a result, in New Zealand and the UK, the focus of the debate shifted towards how equity crowdfunding would spur entrepreneurship, which indicated the priority of entrepreneurship for the majority of stakeholders.

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While the general sentiment towards equity crowdfunding was somewhat positive in Australia and Canada as well, these countries, especially Canada, showed a higher level of opposition to the initiative. Unlike New Zealand, these countries possessed relatively stronger

entrepreneurial finance ecosystems and some powerful incumbents such as investor rights protection groups (FAIR Canada) and high-profile investors (Adir Shiffman in Australia) that were averse to equity crowdfunding. In addition, the Canadian securities regulation was managed by provincial and territorial agencies and laws. Consequently, each region had to establish its own rules, which slowed down the legalization of equity crowdfunding even further.

### **Discussion**

Based on the analysis of the equity crowdfunding legalization process, I would like to make several propositions that go beyond the context of these four nations and may be generalizable for other studies of entrepreneurship, regulation and new industry emergence.

The premise of the goal-based approach to cognitive categorization is that rather than focusing on a list of attributes, audiences evaluate categories based on how effective they are in achieving goals that are relevant for the audience (Durand & Paoletta, 2013; Paoletta & Durand, 2016). Contrary to the previously dominant static view on categories (Hsu, 2006; Hsu & Hannan, 2005; Zuckerman, 1999), the goal-based approach stipulates that categories may adapt to the alterations in the preferences of audience members as well as to evolving social discourse (Durand & Paoletta, 2013; Grodal & Kahl, 2017). These changes do not emerge in isolation but tend to be triggered by entrepreneurs and other parties interested in the change (David, Sine, & Kaehr Serra, 2017).

In this case-study setting, key entrepreneurship stakeholders were not satisfied with the availability of funding in the aftermath of the 2008-2009 crisis. Consequently, one of the prerequisites of a positive evaluation of equity crowdfunding was its complementarity with the goals of the stakeholders. For government actors, the evaluation of equity crowdfunding was positive, as, at least on the discursive level, it was instrumental in serving the public

interest and promoting national competitiveness, which, arguably, are primary objectives of politicians. For entrepreneurs and investors, equity crowdfunding was framed as a tool for advancing entrepreneurship that had the potential to increase the supply of funding for new ventures and enhance industry dynamics without threatening the positions of incumbents. Based on the condition of crisis and perceived complementarity, I propose the following:

Proposition 1: Crises relax “categorical imperatives” and create opportunities for categories that are complementary to the audience’s goals.

Governments exert a profound influence on entrepreneurship, both directly and indirectly (Dowell & David, 2011). Governments tend to endorse, both financially and symbolically, these types of innovations “that may be important for the nation’s future competitiveness” (Georgallis et al., 2018, p. 3). However, while all governments, at least on the rhetorical level, appreciate the need for the advancement of national competitiveness, depending on their goals, they may seek to address this issue differently (Georgallis et al., 2018). Some governments may be more willing to take more risks by quickly adapting innovations, while others adopt more conservative approaches. In this case, Great Britain and New Zealand have pursued a proactive strategy towards equity crowdfunding, aiming to secure the leadership status.

On the contrary, Canada and, in particular, Australia, planned to “sit and watch” how equity crowdfunding would evolve in other jurisdictions, and then acted accordingly. Building on the analysis of the global competitiveness narrative, I propose the following:

Proposition 2: Country ambition for global leadership in a given field increases the pace of a new category’s legal adoption.

Well-established industries are usually characterized by strong incumbents who wield tremendous influence within an industry, as well as government actors that tend to protect the

interest of dominant players, and, hence, the status quo (Fligstein & McAdam, 2012). Thus, the adoption of a new category may be slowed down by strongly positioned incumbent players, which may not be willing to lose their superior status (Ingram & Rao, 2004; Kim et al., 2007). This inertia tends to be less prominent if the general socioeconomic conditions are favorable and the current number of incumbents is low. Hence, the influence of established players on the rules of the game is rather weak. Additionally, if an industry is perceived to be underdeveloped, government actors may be more open to change (Fligstein & McAdam, 2012). New Zealand possessed a dynamic pro-business economy, stable democratic government, and it was a friendly place for innovations in finance. However, the entrepreneurial finance market was very far from being saturated. Consequently, no strong opposition to equity crowdfunding could emerge because there were very few active players in the field of entrepreneurial finance.

Proposition 3: Countries that have a lower level of institutionalization and competition in a given field, but possess a favorable socioeconomic environment and infrastructure conducive to innovation, may be more open to the adoption of new categories focused on the field in question.

Establishing a shared collective identity is essential in recruiting and preserving a group that would like to endorse a new market category (Weber, Heinze, & DeSoucey, 2008). Social discourse plays a vital role in forming a collective identity of emerging categories and helps define a category's distinctiveness from the preexisting ones (David et al., 2017). During the campaign for a more liberal approach to equity crowdfunding in Great Britain, regulators faced a demand for lifting the "sophistication" requirement from both entrepreneurs and politicians. In particular, Labour MP, Barry Sheerman, was campaigning against this legal requirement as, according to him, its language was insulting to ordinary people. Consequently, the non-sophisticated investors were renamed into everyday investors, and the

legal restrictions were significantly relaxed. Thus, the collective identity of a group of pro-crowdfunding supporters was directly imprinted in the regulations.

Proposition 4: A collective identity of actors supporting a new market category may be directly imprinted in the regulation if it resonates with the beliefs of politicians or government actors that have an active role in lawmaking.

## **Contributions**

### **Contributions to research**

This exploratory qualitative analysis of the legalization of equity crowdfunding bridges and expands the existing research on equity crowdfunding, new industry emergence, and legalization as well as policy diffusion.

I offer a contribution to an emerging body of research that seeks to understand how country-level institutions shape equity crowdfunding activity (Cumming, Vanacker, et al., 2019; Johan et al., 2018). This analysis demonstrates that country-specific attributes such as the level of institutionalization in the field of entrepreneurial finance, the similarity of goals and priorities of different stakeholders, as well as political willpower to adopt pro-crowdfunding policies quickly had a profound effect on the local equity crowdfunding ecosystem. I suggest that concerted efforts between British politicians, investors, and entrepreneurs were instrumental in securing the leadership position of the UK in the field of equity crowdfunding. Some of the founders of nascent equity crowdfunding platforms such as Seedrs decided to relocate from the United States because of their hostile policies governing equity crowdfunding securities regulations. Similarly, New Zealand has emerged as an equity crowdfunding leader in the Asia-Pacific region (Schwartz, 2018), even though, historically, the local venture capital industry was rather underdeveloped (CBInsights, 2018). Altogether, I propose that a close collaboration between the state, investors, entrepreneurs, and equity

crowdfunding platforms can create a vibrant crowdfunding entrepreneurial ecosystem (Mochkabadi & Volkmann, 2018).

In addition, I contribute to an emerging stream of research which draws connections between the studies of new industry emergence and legalization (Georgallis et al., 2018; Ozcan & Gurses, 2018). By probing into both discursive and institutional conditions, this framework generates valuable insights concerning the determinants of policy support for emergent industries (Gurses & Ozcan, 2015; Uzunca et al., 2018). I emphasize that government policy towards an emerging industry such as equity crowdfunding is shaped by general government strategy in a given field. The findings on how the United Kingdom and New Zealand's political actors vigorously advocated for the legalization of equity crowdfunding contribute to a better understanding of the role of governments in the legalization of new industries. I uncovered that the speed and direction of a regulatory reform largely depend on whether relevant audiences – government actors – identify as an industry that helps attain their goals, and that enhances national competitiveness. The UK and New Zealand's governments' inclination to endorse equity crowdfunding was also increased by the perceived and actual crises in the field of entrepreneurial finance, which made them more eager to revise the “status quo”. I also find that the UK government categorized equity crowdfunding in line with the existing policy focused on the promotion of the sharing economy and financial innovations. In the case of Great Britain, different stakeholders' perceptions about equity crowdfunding were already shaped by previously established rules of the game.

I also contribute to the literature on policy diffusion (Guler et al., 2002; Polillo & Guillén, 2005; Weber et al., 2009). This study serves as empirical evidence for a more dynamic view of the diffusion processes and their outcomes. Previously scholars looked into the other factors contributing to the policy diffusion mechanisms such as strong trade and

diplomatic ties between countries (Guler et al., 2002) as well as the influence of international policy institutions such as the IMF (Polillo & Guillén, 2005). The focus on these, mostly macroeconomic factors, however, mostly ignored the role of social discourse in policy adoption. The results of this study suggest the dynamics and outcomes of the policy adoption processes may evolve depending on the social discourse, and the process may be facilitated if new policies serve the interests of different stakeholders better. Moreover, I demonstrate that the outcomes of diffusion depend on the perceived role of new policies by key government actors.

### **Contributions to practice**

These findings are relevant for policymakers seeking to revise government policies in light of innovations such as equity crowdfunding. The examples of Great Britain and New Zealand demonstrate that concerted efforts of government and industry helped secure leadership positions for these countries in the emerging industry. Although the United Kingdom is a much smaller market than the United States concerning entrepreneurial finance in general, the coordinated policy of the UK government towards equity crowdfunding was instrumental in acquiring its leadership status in this niche market. The fact that the U.S. lagged in introducing final crowdfunding rules also illustrates that the first mover advantage may last for only a fleeting while if final policies are not expeditiously adopted. Apparently, as legal innovations can be quickly and easily copied, policymakers should strive for rapid and consistent implementation of new policies.

For entrepreneurs, these findings illustrate how innovative types of businesses may gain legal acceptance very rapidly if their framing is aligned with goals of policymakers. In particular, the framing of new ventures as promoters of public interest and national competitiveness may be instrumental in gaining regulatory support instantly. In designing

their business ideas, entrepreneurs are advised to understand that addressing broader societal issues such as unemployment, security, and climate change may be instrumental in mobilizing public and political support, despite the potential pressure from industry incumbents (Uzunca et al., 2018).

### **Limitations**

Despite its contributions, this study is limited by the fact that I obtained all the data from archival sources. I did not interview policymakers and other stakeholders to understand how their perception of equity crowdfunding was formed. Additionally, while I was able to analyze written evidence about the legalization of equity crowdfunding, I did not have access to closed meetings or more informal discussions, which could have further enhanced my understanding of the process.

Furthermore, the sample comprises four Commonwealth countries, which share common cultural, historical, and linguistic backgrounds. I did not include other countries such as Israel because my country selection logic was based on the principle of theoretical sampling. The policy diffusion studies I drew on emphasize that countries are more likely to adopt policies of each other if they bear close similarities such as economic and diplomatic ties, shared cultural and historical traditions, a similar language as well as institutional similarities such as common legal systems (Guler et al., 2002; Simmons et al., 2006). Following this logic, Israel would definitely stand out as an outlier, being a unique country in many respects. Further studies that apply a different sampling logic could benefit from adding other countries such as Israel.

In addition, it should be noted that the United Kingdom, Canada, Australia, and New Zealand are highly developed market economies. The patterns observed in this study could contribute to a better understanding of the legalization process in other developed countries,



which have strong formal institutions. However, it is possible that in emerging countries, a similar process would be less formulaic. Additionally, in countries with more authoritarian political regimes, the society-level discursive processes described in this study may not play a prominent role as governments would be more likely to formulate public policies behind closed doors with little regard for stakeholders' opinions.

### **Conclusions and further research**

Since its emergence in the early 2010s, equity crowdfunding has intrigued entrepreneurship scholars. Moving beyond previously studied factors that drive crowdfunding success, this paper responds to the call for shifting the crowdfunding research focus on country-level institutional characteristics (Cumming, Vanacker, et al., 2019; Mochkabadi & Volkmann, 2018). I demonstrate that the legalization of equity crowdfunding was an endogenous process shaped by country socioeconomic environments, social discourse, as well as the priorities and goals of politicians. While findings described in this paper offer new insights into the relationship between government policy, equity crowdfunding, and, at a more general level, emerging industries, many interesting questions still need to be addressed.

Further investigations of equity crowdfunding could also build on the present study and test some of the findings empirically using a larger pool of countries. While the analysis includes a smaller, albeit typical for qualitative research number of cases, it might be worthwhile to examine how institutional factors (existing VC market, pro-entrepreneurship policies, and macroeconomic factors) impact government policy on equity crowdfunding across a larger sample of countries. I also suggest including countries such as India and China in a study as a growing number of internet users and an increase in middle-class wealth may open up ample opportunities for equity crowdfunding.

More generally, in order to better understand the legalization process of new market categories, further investigations could look into the differences in the legalization process in developing countries characterized by institutional voids (Puffer, McCarthy, & Boisot, 2010). For example, unlike in London and Paris, Uber has faced little criticism in Egypt, partly because of its framing as a public interest phenomenon that addressed the issues of safety, in particular, the sexual harassment of women (Uzunca et al., 2018). It might very well be that other new market categories operating in the sharing economy sector will be more positively perceived in developing countries if those new ventures plan to tackle some of the pressing societal problems such as security.

## **CHAPTER FOUR – Responding to the Crowd: How Online Investor – Entrepreneur Discussions Inform Equity Crowdfunding Decisions**

### **ABSTRACT**

Based on the analysis of a unique proprietary dataset comprising 276 equity crowdfunding campaigns, we propose that forum discussions between would-be investors and entrepreneurs serve as a form of vetting or due diligence. The results highlight that the decision criteria evaluated by the crowd are similar to those of professional investors, however, the importance of different evaluation parameters evolves throughout a campaign. As these online discussions are impromptu and initiated by the crowd, an entrepreneur's response may be perceived as a strong signal of a new venture's quality. I discuss the implications of the results for future research and practice.

**Keywords:** Crowdfunding; Entrepreneurial Finance; Decision Making; Investment

### **Introduction**

Each year support for crowdfunding (CF) campaigns continues to grow, with the amount of funding skyrocketing from \$808.4 million in 2010 to \$99.9 billion globally in 2017 (InsideTab, 2018). While there are several different forms of crowdfunding models being utilized, the campaigners on all of the available platforms are seeking to generate financial support for their cause, idea, or product whereas the primary motivation and benefits for the growing number of campaign backers have evolved over time. At the most philanthropic level, supporters of campaigns on donation-based platforms (e.g., GoFundMe) are often motivated by the feel-good effect and are typically acknowledged with a simple thank you note from the beneficiary. The backers of campaigns on more commercially focused rewards-based platforms (e.g., Kickstarter) are being drawn in by the opportunity to fund and, if all goes well, pre-purchase a new product being offered by an entrepreneur or a company

(Belleflamme et al., 2014). More recently, equity crowdfunding platforms (e.g., Seedrs) have targeted and are attracting investors who, in addition to being interested in supporting a new product or organization, are motivated by the opportunity to potentially earn a financial return on their investment (Cholakova & Clarysse, 2015).

As with any new venture, projects posted on a crowdfunding platform of any type involve a high level of uncertainty, so backers seek to reduce the uncertainty by analyzing the available information about the product, the market, and the team (Courtney, Dutta, & Li, 2017; Davis et al., 2017). Within the equity crowdfunding context, would-be investors typically rely on a short video pitch, a product description, and the information exchanged on the investor message board in order to reduce this information asymmetry. Researchers have studied the relevance and effects of the scripted messages that are posted as part of a campaign quite extensively, primarily focusing on the initial design of crowdfunding campaigns and the language used in the video pitches (Mochkabadi & Volkmann, 2018; Short et al., 2017). However, these elements are more akin to the initial business plan or executive summary that a traditional professional equity investor such as business angels (BAs) and venture capitalists (VCs) would receive as opposed to the information that one would collect during the more interactive due diligence process that involves face-to-face meetings with the entrepreneurs and external experts. Thus, scholars have recently begun to analyze the impact of more dynamic, on-going information cues provided during an equity crowdfunding campaign such as the entrepreneur's updates and comments posted by investors after they contributed to a project (Block, Hornuf, et al., 2018; Dorfleitner, Hornuf, & Weber, 2018). These early studies have focused on the unsolicited communication prepared by entrepreneurs as a marketing mechanism, whereby the team or previous investors try to influence the opinion of the crowd.

Yet, despite the insights gained from these studies, our knowledge about how the communication between the campaigner and potential investors as well as amongst the community of investors themselves impacts the outcome of equity crowdfunding campaigns is far from complete. Specifically, we lack understanding about how online interactions between the crowd and the team have been utilized as a means of conducting due diligence (Mochkabadi & Volkmann, 2018). Whereas BAs and VCs can request meetings with entrepreneurs and seek input from external parties when evaluating a deal, discussion boards implemented by all major equity crowdfunding platforms serve as an alternative channel for crowd investors to seek additional information about a project. Unlike the video pitches and other campaign materials that are prepared in advance, these discussions are impromptu and initiated from within the pool of potential investors. Consecutively, online discussions may serve as a reliable proxy for due diligence process that provides valuable information for potential investors. Despite the initial positive step towards exploring this phenomenon (Kleinert & Volkmann, 2019), we still know little about the effects of such communication on crowdfunding decisions.

The criteria used to make strategic decisions is a topic that has been studied extensively in management literature ranging from hiring decisions to the endorsement of stock on the public market. The research has looked at the influence of different stakeholder`s endorsements and the ultimate importance of various criteria used in the selection process ranging from third-party endorsements in human resources selections to the influence of third-party certification effects on IPO pricing (Fernandez et al., 2000; Fernandez & Weinberg, 1997; Megginson & Weiss, 1991; Stuart, Hoang, & Hybels, 1999). Following this logic, I propose that online investor-entrepreneur discussions in equity crowdfunding context may be another instance of the third-party certification and reputation building mechanism discussed above. Given that the online environment of equity crowdfunding precludes a comprehensive

due diligence typical for VCs, these investor discussion forums may be one of few selection mechanisms available for potential equity crowdfunding investors.

In order to examine the potential effects of this dynamic investor-entrepreneur dialogue, I have collected, coded, and analyzed data from all campaigns posted on a leading European equity crowdfunding platform over a one-year period. The results suggest that the discussions between potential investors and entrepreneurs have become an essential part of the crowdfunding campaign assessment process. Whereas scripted elements of a crowdfunding campaign such as videos and initial pitch documents have become ceremonial and institutionalized across the industry, the dialogue between the crowd and entrepreneurs is much more topic-specific and unique to each campaign. More practically, I argue that equity crowdfunding investors could benefit from delving deeper into the details, moving beyond videos and pitch documents, by making better use of the on-going discussions with entrepreneurs in order to receive more focused and current information and, ideally, harness the wisdom of the crowd. Equally important, entrepreneurs need to understand that starting a crowdfunding campaign is a decision that cannot be taken lightly as it requires sustained commitment throughout the whole campaign and the ability to respond to potential investors in a prompt, albeit thoughtful, way.

### **Literature review**

While we know much about the role of information signaling in reward-based and loan-based crowdfunding (Short et al., 2017), research on equity crowdfunding is still in its infancy (Mochkabadi & Volkmann, 2018). Although several signals affect the funding probability of campaigns, it is possible to distinguish between fixed, campaign-specific characteristics, and more dynamic parameters which evolve during the course of a campaign. Due to the availability of data, the research on fixed, campaign-specific characteristics is

already well established in the broader crowdfunding literature (Hoegen, Steininger, & Veit, 2018; Moritz & Block, 2016; Short et al., 2017).

At the most fundamental level, research focused on reward-based crowdfunding projects has shown that campaigns that are framed as opportunities to help others, as well as projects focused on sustainability, are more likely to receive funding from the crowd (Allison, Davis, Short, & Webb, 2015; Calic & Mosakowski, 2016). Similarly, the project's perceived level of creativity is positively related to crowdfunding performance (Davis et al., 2017). However, with respect to product innovativeness, campaigns promoting incremental innovation are more likely to be funded in comparison to those targeting radical innovation, which may be due, in part, because it is easier for non-professional investors to comprehend an incremental innovation (Chan & Parhankangas, 2017). Several other aspects of the scripted, pre-designed elements of crowdfunding campaigns such as videos and pictures have been studied as well. In general, the inclusion of a video and pictures as part of the project description increases the chances that a campaign will secure the desired amount of funding (Colombo, Franzoni, & Rossi-Lamastra, 2015; Mollick, 2014). The use of short and simple to understand videos has been shown to be particularly effective for pro-social projects (Dushnitsky & Marom, 2013). However, videos appear to play little role in more commercially driven campaigns (Parhankangas & Renko, 2017), as they are now quite commonplace in these more capital intensive campaigns and therefore have become ceremonial in nature.

Another growing stream of research on non-equity crowdfunding is dedicated to the analysis of the impact that the founding team characteristics have on crowdfunding performance. Within this literature, significant attention has been devoted to the role of gender in campaign success. While there are fewer women-led campaigns on non-equity crowdfunding platforms, female fundraisers usually enjoy higher success rates than their male

counterparts (Frydrych, Bock, Kinder, & Koeck, 2014). In general, campaigns in which women are part of the top management team outperform male-only projects, and this difference in funding performance is even more pronounced for high-tech projects. Greenberg and Mollick (2017) explained this discrepancy because of “activist choice” homophily. In other words, female crowdfunders tend to support female-led projects, especially in male-dominated fields such as high tech (Greenberg & Mollick, 2017). The proportion of female backers on reward-based crowdfunding platforms varies significantly depending on industry ranging from as high as 55% for fashion and publishing to as little as 20% for high-tech and games. However, women account for almost 40% of total backers of female-led projects in some industries where women are traditionally underrepresented such as high-tech (ibid.). These findings are of particular interest, given that, historically, female entrepreneurs are disproportionately deprived of new venture funding relative to their male counterparts (Brush, Greene, Balachandra, & Davis, 2014).

A smaller but growing literature analyzes the impact of funding dynamics and the information posted during campaigns on reward-based crowdfunding performance. In general, the funding pattern for reward-based crowdfunding has been shown to be U-shaped (Kuppuswamy & Bayus, 2017). While there is oftentimes a substantial flow of financial contributions during the first week of a campaign, especially from loyal backers and close acquaintances of entrepreneurs (Skirnevskiy, Bendig, & Brettel, 2017), the vast majority of campaigns experience a significant slowdown in the middle stage of the funding process (Kuppuswamy & Bayus, 2017). Once a campaign moves to the final stage, the funding rate tends to increase more rapidly, especially once a project nears its target goal (Kuppuswamy & Bayus, 2017). Research on an entrepreneur’s efforts to maintain an active communication strategy during a campaign, in the form of reminders and updates, highlights interesting effects on the probability of funding success for non-equity-based crowdfunding (Gleasure &



Feller, 2014; Xu et al., 2014). Specifically, Xu et al. (2014) find that having a few comments posted in the project page positively correlates with crowdfunding success, whereas the relationship becomes negative once the number of comments becomes very large.

### **Equity crowdfunding**

Equity crowdfunding is an emerging field of research, which has been gaining prominence in the past few years (Mochkabadi & Volkmann, 2018), especially after the equity crowdfunding market had been opened to the general public in several countries such as the United States (SEC, 2015). As equity crowdfunding investors are in no small extent financially motivated, their decision-making criteria are more “rational” than their more philanthropic and product-focused counterparts (Moysidou & Spaeth, 2016). In addition to the perceived merits of the product being developed, potential equity investors are also interested in other aspects of the project such as, but not limited to, information regarding the equity retention by the founding team and a detailed commercial and financial risk assessment (Ahlers et al., 2015; Vismara, 2016a). However, the limited timeframe of a campaign and the impersonal nature of crowdfunding preclude a comprehensive assessment of deals. Moreover, thanks to the democratization of new venture funding that has been ushered in by online crowdfunding, the majority of potential backers on equity crowdfunding platforms are not professional investors, so other factors such as social media exposure have become very relevant for the crowd (Lukkarinen, Teich, Wallenius, & Wallenius, 2016).

An emerging area of crowdfunding research is dedicated to the role of the more dynamic, unscripted factors that develop or are updated during an equity crowdfunding campaign (Block, Hornuf, et al., 2018; Hornuf & Schwienbacher, 2018; Vismara, 2016b). In terms of funding patterns, scholars have observed a significant difference between equity and non-equity crowdfunding. Whereas the funding distribution of non-equity crowdfunding is usually U-shaped, the funding pattern of the majority of equity crowd-investing platforms is

L-shaped (Hornuf & Schwienbacher, 2018). Early, and, in particular, large contributions in an equity campaign appear to serve as quality signals for investors, which may initiate information cascades that increase the number of later investors (Astebro, Fernández Sierra, Lovo, & Vulkan, 2017; Vismara, 2016b; Vulkan et al., 2016). While already involved during previous funding rounds investors as well as “family, friends, and fools constitute the majority of investors in the first week...relatively more sophisticated investors arrive thereafter” (Abrams, 2017, p. 3). In addition to securing early contributions, effective communication with the crowd appears to be another driver of equity crowdfunding success (Angerer, Brem, Kraus, & Peter, 2017). Successful entrepreneurs have been shown to strategically post updates during a campaign to inform prospective investors about business development and to enhance group identity and the level of cohesion with existing investors (Dorfleitner et al., 2018; Li et al., 2016). These unsolicited updates posted by the entrepreneurs are shown to increase funding success, in particular, those containing information about new funding sources, business development processes, and marketing campaigns (Block, Hornuf, et al., 2018). However, the investment dynamics associated with crowdfunding are not only influenced by the updates produced by entrepreneurs (Hornuf & Schwienbacher, 2018), third-party communication such as feedback provided by investors already involved in a campaign is also valued as a quality signal and may potentially influence other prospective investors’ decision-making in a more significant way (Moritz, Block, & Lutz, 2015). Hornuf and Schwienbacher (2018) have demonstrated that the crowd positively reacts to comments posted by investors who already contributed to a project. The positive effect is strongest when comments contain potentially valuable feedback on the product or market, or when an investor posts that it is his or her second investment during the same campaign, or that he or she participated in a previous campaign of that startup.

However, even though scholars have studied updates provided by entrepreneurs and individual comments provided by individual investors after they invested, we know very little about equity crowdfunding discussion boards and whether active discussions on platforms affect investment behavior, and, ultimately, crowdfunding performance (Mochkabadi & Volkmann, 2018). Knowing that "...it might be possible that disclosed project description does not cover all relevant aspects for an investment decision" (Mochkabadi & Volkmann, 2018, p. 32), and that reputation systems such as eBay or Amazon forums have the potential to signal quality to potential investors and thus effectively reduce information asymmetries (Tomboc, 2013), I believe that there is much to be learned through a critical inquiry of discussion boards on equity crowdfunding platforms. Whereas professional investors such as VCs possess relevant knowledge, access to a network of experts, and time to conduct comprehensive due diligence before making an investment, equity crowdfunding discussion boards serve as a one of few tools at the disposal of the crowd, in order to reduce information asymmetry and, more specifically, serve as a proxy for equity crowdfunding due diligence. However, the online, impersonal nature of equity crowdfunding, as well as a much shorter timeframe, can significantly affect the equity crowdfunding due diligence process. Moreover, the majority of potential backers on equity crowdfunding platforms lack expertise and extensive networks of professional investors (Vismara, 2016b). As a result, the deal evaluation criteria of investors on equity crowdfunding platforms are not necessarily the same as those in more traditional settings, and analyzing these potential differences is a question that warrants further investigation.

Research examining comments that were posted by investors who have already invested in a particular campaign (Block, Hornuf, et al., 2018; Dorfleitner et al., 2018; Hornuf & Schwienbacher, 2018) further enhances our understanding of the impact of communication on crowdfunding platforms. Nevertheless, even though these comments may serve as quality

signals to the crowd, knowing that the contributors already have “skin in the game” there is a risk that their input may be positively biased and, as such, may be described as a part of a marketing campaign aimed to mold the opinion of the crowd in favor of a particular project.

Following these initial investigations of the role of strategic communication, the next logical step is to analyze online investor discussion forums as a medium for crowd investor due diligence (Kleinert & Volkmann, 2019). Hence, the current study seeks to understand in a more systematic way not only when investors engage in discussions and raise questions during an equity crowdfunding campaign, but, more importantly, how these dynamic exchanges that are initiated by the crowd ultimately impact campaign performance.

### **Hypotheses development**

I develop multiple hypotheses to address my central research questions. Beginning with the general nature of non-scripted communication, the first hypothesis investigates the impact of discussion intensity on crowdfunding performance. Building upon the many findings focused on the role of specific criteria in traditional equity funding settings, additional hypotheses are also developed. Specifically, the impact of threads regarding the quality of the team, the product, market, and financial aspects of a campaign are explored - at different stages of a crowdfunding campaign.

#### **The impact of open discussions on campaign performance**

The four decades of research on equity funding have enriched the idea that information exchanges between investors and entrepreneurs play a significant role both before and after the initial funding decision is made (Cable & Shane, 1997; Fried & Hisrich, 1994; Sapienza, 1992). Scholars have found that both entrepreneurs and investors are interested in engaging in dialogue, especially during the due diligence process, for several reasons. On the one hand, the need for further information is critically pressing for investors due to potential

adverse selection issues (Cable & Shane, 1997). On the other hand, entrepreneurs are advised to maintain open and frequent communication with investors in order to build a relationship of trust between the parties, which may ultimately result in a more favorable evaluation of a deal (Batjargal, 2007; Shepherd & Zacharakis, 2001).

In the context of equity crowdfunding, the frequency of discussions is also likely to serve as a signal to the crowd and have an effect on investor decision-making knowing that potential investors appear to value updates and information exchanges during a campaign. While the updates provided by entrepreneurs have been shown to have some positive effect on performance (Block, Hornuf, et al., 2018), the crowd seems to especially value third-party communication such as messages posted by investors involved in a campaign (Hornuf & Schwienbacher, 2018). As we have seen within the context of charity-based crowdfunding, studies have found that the relationship between crowdfunding success and the messages posted during the project follows an inverted U-shape (Gleasure & Feller, 2014), that is, it becomes negative if the number of messages increases significantly.

Moreover, a large percentage of participants on equity crowdfunding platforms are unsophisticated investors, who have been shown to contribute during the early stages of campaigns as opposed to more sophisticated investors, who are more likely to invest at a later stage and who exhibit behavior patterns similar to those of VCs (Abrams, 2017). The less experienced investors from the crowd may be more prone to invest based on information cascades created by other investor contributions and comments than their professional counterparts (Vismara, 2016b). That is, experienced investors will not invest immediately, but rather ask additional questions as they conduct a brief due-diligence if they are interested in the pitch posted on the campaign. If they are not, they will be more likely to switch their interest to another project. Hence, unlike rewards-based campaigns, I propose that there is a

more linear positive relationship between the intensity of entrepreneur-investor discourse and crowdfunding performance. As such, I propose the following hypothesis.

**Hypothesis 1:** There will be a general positive linear relationship between the intensity of investor-entrepreneur discussions and equity crowdfunding performance.

Potential equity investors, regardless of the environment, typically evaluate a few key criteria of a deal when making an investment decision (Fried & Hisrich, 1988; Macmillan et al., 1985). Prior research has also highlighted that selected criteria may attract more attention from investors at different stages of the evaluation process (Fried & Hisrich, 1994; Petty & Gruber, 2011). Several previous studies of equity crowdfunding decision-making report that the decision to invest is driven by rational, financial motives (Cholakova & Clarysse, 2015; Moysidou & Spaeth, 2016), and that, to some extent, the factors that affect the crowd's investment decision-making resemble those of VCs. For example, Brem and Wassong (2014) found that the crowd's investment decisions were influenced by team competencies, venture stage, and the business model as well as the anticipated return on investment. Other scholars have reported the importance of such factors as previous funding by VCs (Hornuf, Schmitt, & Stenzhorn, 2018), active communication strategy of entrepreneurs (Angerer et al., 2017), as well as the presence of a lead investor (Li et al., 2016). One of the potential advantages of the virtual nature of crowdfunding platforms is that a thread about any of these criteria, whether it be a comment or a question, can be initiated by and responded to at any time by one of a multitude of potential investors. Yet, it is difficult for one to predict the importance and the associated timing of the evaluation criteria used by unsophisticated investors in the equity crowdfunding context.

Any deal or project is ultimately highly dependent upon the perceived quality of the product and the nature of the market, and these factors have been identified as important by

professional investors during the screening stage (Macmillan et al., 1985; Macmillan, Zemann, & Subbanarasimha, 1987). Drawing upon this logic, I expect that during the early stage (i.e., a first week) of a campaign most of the investor-entrepreneur discussions will be focused on the product and market as these are fundamental elements that will provide critical information regarding the project's commercial potential. I propose that some potential investors might still focus on the product and market criteria after the first week, but this interest would mean that the project does not entirely convince them, and therefore, they would be less likely to move on to other discussions, and, ultimately, they would be less likely to invest. Once satisfied with the commercial elements, professional investors commonly shift focus to the financial criteria during the latter stage of the evaluation process (Petty & Gruber, 2011). Although the time frame in equity crowdfunding may be more accelerated than in the classic VC context, the importance of the financial elements of a project will be equally recognized by potential investors (Ahlers et al., 2015; Hornuf & Neuenkirch, 2017) and I expect finance to feature in discussions later in the campaign after the first week. Of course, if investors are focused on finance during the first week, this may signal either a remarkable opportunity or, more likely, some grave concerns regarding the valuation which immediately attracts the attention of sophisticated investors (Carpentier & Suret, 2015; Mason & Harrison, 1996).

Overall, I propose that investor-entrepreneur discussions of more successful campaigns will take place in two stages, with first week discussions focused on product and market, and post-first week discussions focused on finance. Accordingly, I propose the following hypotheses.

**Hypothesis 2a:** Discussions about product and market during the first week will be positively related to crowdfunding performance.

**Hypothesis 2b:** Discussions focused on finance after the first week will be positively related to crowdfunding performance.

Of the many criteria that have been identified, the relative importance of and focus on the management team within the domain of equity investment decision-making is well established in the new venture funding literature (Muzyka et al., 1996; Tyebjee & Bruno, 1984; Zacharakis & Meyer, 2000). However, the evidence regarding the salience of information about project team in the context of crowdfunding is limited. In keeping with much of the VC decision-making literature, selected studies highlight the vital role of the set of characteristics related to the team and entrepreneurs' social capital (Piva & Rossi-Lamastra, 2018; Vismara, 2016a). Bernstein, Korteweg, and Laws (2017) take the human capital argument further and assert that early stage investors base their decisions primarily on the information about the founding team.

Yet, it is important to note that there are also findings reported in the equity crowdfunding literature that may challenge this normative view. Notably, Dorfleitner et al. (2018) have found that among all the updates provided by entrepreneurs, only a few of the updates were dedicated to a team. Similarly, Block, Hornuf, et al. (2018) have demonstrated that, unlike additional information about new funding sources, business development processes, and marketing campaigns, updates about the team have no significant effect on fundraising dynamics. However, these studies examined the entrepreneur generated updates as opposed to the discussion threads that are initiated by the crowd. Consequently, owing to the focus on investor-led discussions and the more general findings concerning team quality being an essential evaluation criterion for professional and crowd-based investors alike, I propose the following hypothesis:



**Hypothesis 3:** Discussions focused on the team will be positively related to crowdfunding performance.

## **Methodology**

### **Sources of data**

The online equity crowdfunding landscape is quite diverse as platforms widely differ concerning the terms and features provided. First of all, while the majority of crowdfunding platforms are open for both non-professional and more sophisticated investors, others such as OurCrowd (Israel) or Syndicate Room (UK) target only professionals and high net worth individuals. Moreover, platforms vary significantly with respect to the degree of certification being provided. Whereas some platforms only ensure the regulatory compliance of the crowdfunding campaigns listed on their site, the majority of platforms also verify the accuracy of projections and business plans. Only a minority of equity crowdfunding services such as OurCrowd (Israel) conduct a comprehensive assessment of projects, or, in other words, due diligence somewhat similar to that of VCs. Consequently, in general, crowdfunders are expected to perform their own due diligence. To facilitate the process, most of the platforms have introduced online discussion platforms where prospective investors may communicate with the team as well as read comments and questions of other crowdfunders and read the responses from the team.

Most of the equity crowdfunding platforms operate in an all-or-nothing fashion, meaning that a minimum funding goal must be reached in order to receive funding from the crowd. Additionally, the majority of services permit overfunding, whereby a team may continue to raise additional funding once the minimum goal is attained. Usually, during the overfunding period, investors contribute at the same terms as at the general funding stage. In other words, the pre-money valuation does not change, whereas the post-money valuation

increases, and more equity is released after each new investment. Consequently, the value of investments made by the crowd stays the same regardless of the degree of overfunding; however, after each new overfunding investment, an equity stake of previous investors is diluted. Please refer to Table 13 for an overview of leading equity crowdfunding platforms with respect to the parameters discussed above.

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[[Please insert Table 13 about here]]  
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The data on the equity crowdfunding campaigns was collected from Crowdcube over the period spanning from September 30, 2017, to September 30, 2018. Crowdcube is the most prominent equity crowdfunding platform in the world and represents about 22% of the overall equity crowdfunding capital raised worldwide between 2017 and 2018 (InsideTab, 2018). The platform's functionality is typical for equity crowdfunding and satisfies our needs in terms of providing an online forum and access to all potential investors. The average funding success rate reported by the platform is around 50-60% (Crowdcube, 2019). I hand-collected titles of investor discussion sections as well as descriptions of all campaigns that were completed until the end of the observation period. Altogether, I analyzed more than 4,400 headlines of investor-entrepreneur discussion sections pertaining to the 276 Crowdcube campaigns that were active during the observation period. Overall, given the significance of Crowdcube in the equity crowdfunding landscape, and the fact that I was able to track all campaigns within the one-year time frame, I obtained a comprehensive representation of investor-entrepreneur communication in the equity crowdfunding context.

In order to focus on specific topics, I developed a coding scheme that categorized the discussions into subjects. The original text data – the headlines of investor-entrepreneur

discussion – which were copied verbatim, have been analyzed using qualitative methods to reveal the topics present in the discourse (Miles, Huberman, & Saldaña, 2014).

Equity crowdfunding is a phenomenon that resembles non-equity crowdfunding and more traditional sources of funding as VCs and BAs because both experienced and non-experienced investors invest on these platforms. Given some affinity of equity crowdfunding with VCs and BAs, I expected that some of the discussion points raised by crowdfunders would be similar to those of VCs and BAs. Accordingly, I developed the initial coding scheme based upon the VC and BA decision-making literature and adapted it as the coding progressed (Carpentier & Suret, 2015; Petty & Gruber, 2011). The final coding scheme is comprised of six discussion categories: *Product & Model*, *Market*, *Finance*, *Team*, *Fundraising Strategy*, and *Other*. Please refer to Table 14 for an overview of the coding categories and illustrative quotes.

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[[Please insert Table 14 about here]]  
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A systematic process was employed to ensure the validity and reliability of the coding. First, each passage of text, code, or another relevant piece of evidence data was preserved, and a coherent, extensive explanation for each variable was recorded. Second, an experienced qualitative researcher examined the data analysis procedure, the coding scheme development, and the resulting conceptual categories. Third, a second researcher who was not directly involved in the data collection recoded a random sample of investor-entrepreneur discussion titles. The sample was comprised of 59 campaigns, and 2065, or 15% of the total lines of code. Afterward, the interrater agreement was examined by calculating Cohen's Unweighted Kappa (Cohen, 1960). The result ( $K=0.8755$ ) has signified a high level of interrater reliability (Landis & Koch, 1977).

I complemented these records with data from InsideTab – a proprietary crowdfunding database. InsideTab is one of the most extensive databases that aggregates data on crowdfunding from both individual platforms and industry level statistics. The information supplied by InsideTab includes, but is not limited to, the amount of money raised during a particular campaign, project goal, status of a campaign (failure/success), and the number of crowdfunders as well as aggregated industry-level data. For all the 276 Crowdcube campaigns during the period under study, I utilized data related to numerous parameters such as the amount of funding raised, the number of investors, and whether a given project succeeded or failed in reaching the funding goal as well as more general data on campaign funding targets and industry dynamics.

### **Dependent variables**

In the empirical analysis, the dependent variable *crowdfunding performance* includes several different aspects of crowdfunding success. I operationalize *crowdfunding performance* using three different variables that have frequently been highlighted in the crowdfunding literature (Ahlers et al., 2015; Piva & Rossi-Lamastra, 2018; Vulkan et al., 2016). Utilizing a variety of measures allows capturing both the magnitude and scope of crowdfunding performance (Anglin, Wolfe, Short, McKenny, & Pidduck, 2018).

*Raised overall.* The total amount of funding raised during a campaign is measured using InsideTab data.

*Overall investors.* The total number of investors who contributed to a project is captured by InsideTab data.

*Final funding rate.* This is a ratio that indicates the relationship between the funding target and the amount raised and is calculated using data from InsideTab as well as campaign descriptions downloaded from the Crowdcube website.

## **Independent variables**

*Discussions.* This variable captures the total number of investor-entrepreneur dialogues posted on discussion boards for a given campaign.

*Product & Model.* All information about a project's business model, product, strategy, and future offerings/plans are included in this variable.

*Market.* These discussions include topics related to market characteristics, competition, and regulations.

*Financial.* This variable comprises all the discussions about financial projections and a new venture's potential to generate a return for investors.

*Team.* This variable includes any comments or questions about the project's founders and employees.

*Fundraising strategy.* This variable comprises information on the overall fundraising strategy for a project, previous funding rounds, reasons for choosing crowdfunding over other sources of funding as well as clarification questions about the crowdfunding mechanism.

*Other.* This variable is dedicated to threads that do not fit into any of the aforementioned groups.

## **Controls**

Building on existing research on non-equity and equity crowdfunding, I include numerous control variables to account for established determinants of crowdfunding performance, which are defined below.

*Industry classification (primary)* (Hornuf & Schmitt, 2016). This variable contains a campaign's primary industry classification code based on the United Kingdom Standard

Industrial Classification (UKSIC). The code is assigned according to official company registry information or, if this information is not available, according to the description provided by a campaign itself.

*Industry classification (secondary)*. This variable contains (if data were available) a campaign's secondary industry classification code based on UKSIC.

*Funding goal* (Vulkan et al., 2016). This variable indicated an initial funding goal, which was needed to be attained in order for a campaign to be successful.

*Equity offered* (Kumar & Langberg, 2017). This variable provides information on the final amount of equity offered to the crowd at the end of an equity crowdfunding campaign.

*Pre-money valuation* (Vulkan et al., 2016). This variable indicates a pre-money valuation provided in campaign description.

*Campaign duration* (Lukkarinen et al., 2016). The variable contains information on the length of a campaign based on the records provided by InsideTab as well information recorded directly from the Crowdcube website.

*Ongoing campaigns* (Block, Hornuf, et al., 2018). This variable records the number of campaigns running on Crowdcube simultaneously.

*Competing investments* (Block, Hornuf, et al., 2018). The total amount of funding raised on Crowdcube throughout a given campaign.

## **Empirical models**

I utilize the following econometric techniques to estimate my models. Because *Raised overall*, *Overall investors* and *Final funding rate* are non-normally distributed, I use the generalized linear model (GLM) which allows for dependent variables to be non-normally

distributed (MacCullagh & Nelder, 1984). I also control for highly influential observations by calculating Cook's distance and creating a dummy variable *Sample* to account for data points that may distort the outcome and accuracy of regressions. The estimation coefficients for *Raised overall*, *Overall investors* are represented by natural logs, while the coefficients for *Final funding rate* are squared roots of the original values.

## Results

Table 15 offers a summary of the discussion themes, both overall and grouped by campaign stage. In each instance, the dominant discussion threads are related to the product and business model as well as the financial aspects of a project. Interest in the fundraising strategy is consistently present in about one-fifth of the discussion threads, while discussions regarding the market appear less frequently. Questions and comments focused on the team are least likely, being present quite infrequently in discussions regardless of the campaign stage. With respect to a campaign stage, there are no significant differences regarding the distribution of topics, except for Finance. Please refer to Table 16 for the results of the respective T-test. Table 17 provides the descriptive statistics for the sample, and Table 18 displays the correlation matrix of all variables.

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[[Please insert Tables 15, 16, 17 and 18 about here]]  
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Figure 3 plots the average distribution of discussion threads per day, whereas Figure 4 displays the distribution of discussion topics at different stages of Crowdcube`s campaigns.

During the first few days of the most dynamic campaigns, the number of threads can be as high as 60 and, on average, I find that over 48% of all discussions take place in the first seven days. As can be seen in Figure 3, the average number of discussions per campaign steeply declines after the first couple of days until reaching a low steady-state in the middle of

a campaign, with a very minor uptake in discussions just prior to the close of the campaign. There are no significant differences with respect to the distribution patterns of different discussion topics over the course of a campaign as can be seen in Figure 4. Thus, the distribution of investor-entrepreneur discussions in my sample is similar to the L-shaped dynamic pattern of equity crowdfunding (Hornuf & Schwienbacher, 2018), with the majority of investing activity taking place during the first week and then trailing off dramatically. In line with the previous research on crowdfunding which analyzes the impact of the sentiment of backer comments and entrepreneur updates on crowdfunding performance (Courtney et al., 2017; Dorfleitner et al., 2018), I also examined the sentiment expressed in the headlines of investor-entrepreneur discussions using NVivo sentiment analysis tool. The vast majority of the text (94.69%) was coded as neutral. Given the small number of non-neutral threads, I did not proceed with further statistical analysis of sentiment.

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Tables 19, 20, and 21 provide the results of the hypothesis tests concerning the *funds raised*, *number of investors*, and *funding rate*, respectively. These tables include both the coefficients and standard errors of the models.

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[[Please insert Tables 19, 20, and 21 about here]]  
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Hypothesis 1 proposed a positive (linear) relationship between the number of comments and crowdfunding performance. The independent variable *Discussions* has a positive and statistically significant effect for all models I use (funds raised:  $b = 0.033$ ,  $p < 0.01$ ; investors:  $b = 0.052$ ,  $p < 0.01$ ; funding rate:  $b = 0.014$ ,  $p < 0.01$ ). Hence, hypothesis 1 is supported.



Hypothesis 2a proposed that discussions about product and market during the first week are positively related to crowdfunding performance. The *Product & Model* first week estimation coefficients are consistently insignificant for all the models. However, they become positive and significant if I focus on the post first week discussions (funds raised:  $b = 0.028$ ,  $p < 0.1$ ; backers:  $b = 0.035$ ,  $p < 0.01$ ; funding rate:  $b = 0.010$ ,  $p < 0.1$ ). The *Market* category for the first week is positive and significant level for all three models (funds raised:  $b = 0.085$ ,  $p < 0.05$ ; backers:  $b = 0.075$ ,  $p < 0.01$ ; funding rate:  $b = 0.034$ ,  $p < 0.01$ ). Overall, I find mixed support for hypothesis 2a.

Hypothesis 2b suggested that discussions on finance after the first week are positively related to crowdfunding performance. The estimation results for *Finance* category after the first week are indeed consistently positive and significant (funds raised:  $b = 0.055$ ,  $p < 0.01$ ; backers:  $b = 0.050$ ,  $p < 0.01$ ; funding rate:  $b = 0.018$ ,  $p < 0.01$ ). Therefore, hypothesis 2b is supported.

Based on the existing literature, I expected that the frequency of investor-entrepreneur discussions regarding team would be comparable to such topics as finance, product, market, fundraising strategy, and business model. Somewhat surprisingly, less than 3% of all coded headings of discussions may be attributed to the *Team* category, which is in stark contrast to *Finance* (32.46%), *Product & Model* (30.96%) or *Market* (16.02%). Moreover, hypothesis 3 proposed that discussions about the team will be significantly related to crowdfunding performance. Counter to my expectations, the independent variable *Team* has no statistically significant effect on crowdfunding performance. Therefore, I do not find support for hypothesis 3.

## Discussion

One of the central questions of this study is centered on the role of equity crowdfunding discussions boards, and whether active discussions may affect the outcome of campaigns. I argued that discussion platforms serve as a tool to reduce the information asymmetry for potential investors and that the intensity of discourse, or, in other words, the number of discussions, may trigger information cascades and attract less sophisticated investors to a campaign. The results demonstrate that the number of dialogue threads has a statistically and economically significant positive effect on crowdfunding performance regardless of how the performance is measured. Most generally, these findings provide further support for the view that communication between investors plays an essential role in investment decision-making (Estrin, Gozman, & Khavul, 2018). By demonstrating the influence of investor-entrepreneur discussions on equity crowdfunding performance, I contribute to an emerging stream of research on more dynamic signals in equity crowdfunding (Block, Hornuf, et al., 2018; Hornuf & Schwienbacher, 2018). While online communication with the team as well as with other investors appears to be essential for crowd decision-making (Moritz et al., 2015), little systematic knowledge exists about whether active investor-entrepreneur discussions on platforms affect investment behavior. Given that similar reputation systems were shown to be very powerful in the context of Amazon and eBay (Tomboc, 2013), and, correspondingly, discussion forums have been adopted by major equity crowdfunding platforms across the globe, I believe that this is an issue that warrants detailed investigation. Consequently, my analysis makes one of the first steps towards understanding the role of these reputation systems in equity crowdfunding.

While online discussion boards are relatively new phenomena, other forms of certification relying upon third-party assessment have been extensively studied by entrepreneurship scholars. As emerging firms possess a limited track record and the evidence

about their quality is usually inconclusive, investors make their judgments based on the reputation of startup partners (Stuart et al., 1999), previous investors (Drover, Wood, & Zacharakis, 2015) and referrals from investor networks (Fried & Hisrich, 1994). Third-party certification is also present in other domains of management such as human resources where referred applicants gain a significant advantage over non-referred applicants in the hiring process (Fernandez & Weinberg, 1997). Thus, while the analysis of the discussion boards is one of the first of its kind in equity crowdfunding literature, the underlying certification mechanism I uncovered resembles other instances of third-party certification and reputation building well-documented by entrepreneurship scholars (Fried & Hisrich, 1994; Megginson & Weiss, 1991; Shane & Cable, 2002).

Beyond the intensity of discourse, this study also offers a detailed analysis of the evaluation criteria addressed in discussion boards on platforms. The growing literature on equity crowdfunding states that investment decision-making is affected by a diverse set of factors such as team quality, entrepreneur social capital and project characteristics (Ahlers et al., 2015; Piva & Rossi-Lamastra, 2018). We know little, however, about whether investor decision-making criteria evolve over time and during the course of the campaign. The results indicate that messages posted about the market during the first week, and finance as well as product and business model after the first week, are positively correlated to crowdfunding performance. I originally envisaged that investors begin with questions about the market, product, and business model, and then move directly to finances. However, it appears that, for more successful campaigns, the discussions about product and business model continue to matter to potential investors beyond the first week. One possible explanation is that equity crowdfunding is a mixed environment between reward-based crowdfunding and professional investment, and, thus, many everyday investors will be attracted primarily by the product. One notable example of this investor mix is Brewdog – one of the most successful campaigns

in the history of equity crowdfunding that raised £26M from 1530 of investors, a result that would not have been possible without the support from their consumers and dedicated fanbase. Interestingly, the evaluation pattern of the crowd resembles that of professional investors who also begin by addressing the market and then moving to the financial projections if they are still interested (Petty & Gruber, 2011). Yet, due to the pace and specificity of crowdfunding campaigns, the due diligence cycle is significantly shorter and involves product-focused discussions even at a later stage.

One of the surprising findings of this study is the paucity of discussion about the startup team (<3% of all threads). While team-related issues have consistently featured in the venture capital decision-making literature for early-stage investment decision-making (Tyebjee & Bruno, 1984; Zacharakis & Meyer, 2000), potential investors on equity crowdfunding campaigns do not tend to seek additional information about it during campaigns. I propose two explanations for these results. Firstly, investors may put little value on signals about the team coming from a team itself as the information may be viewed as being self-serving and biased. Secondly, investors may be more interested in learning more about the dynamic aspects of a campaign such as new information about business development and new external financing for a project (Block, Hornuf, et al., 2018). While team composition is unlikely to change significantly during a campaign, which, on average, lasts for less than seven weeks, it is enough time for an entrepreneur to conduct an additional market test, revise financial projections, or modify the plans for their funding strategy.

Overall, this study contributes to the literature on investment decision-making in equity crowdfunding (Cholakova & Clarysse, 2015; Hoegen et al., 2018; Moritz et al., 2015). Specifically, I add to the studies of selection criteria used by crowdfunders. While scholars have made significant progress in understanding how predesigned parameters such as a business plan or a video affect crowdfunding performance, despite few exceptions (Block,

Hornuf, et al., 2018; Hornuf & Schwienbacher, 2018), we know very little about the effect of more dynamic signals such as investor-entrepreneur communication. While the study by Kleinert and Volkmann (2019) began to address investor-entrepreneur online discussions, my analysis investigates this communication in detail and shows that it matters for the success of campaigns and also that the focus of this communication regarding the evaluation criteria used by investors evolves throughout a campaign.

### **Implications for practice**

Crowdfunding, and in particular, its equity form has a significant potential to democratize the world of entrepreneurial finance. While it has already opened up enormous possibilities for both entrepreneurs and amateur investors, it is essential that the growing numbers of everyday investors make informed funding decisions and support productive entrepreneurship. Traditional due diligence mechanisms are less available in the equity crowdfunding context, yet, I argue, the discussions between entrepreneurs and investors serve as a close proxy for the assessment process. Hence, this discourse may provide several benefits to, and be highly valued by, potential investors. They need to be prepared to ask additional questions and monitor the entrepreneur's dialogue with other potential investors to ensure that informed financial decisions are made. Specifically, the contributions for investors are twofold. First, I argue that investors need to go beyond pre-scripted videos and pitch documents and make even better use of discussions with entrepreneurs to receive more impromptu feedback. Second, investors should capitalize on the wisdom of crowds as feedback posted by a particular investor may be read and interpreted by others as well.

These findings are also relevant for entrepreneurs seeking to raise money on equity crowdfunding platforms. Monitoring and managing investor communication during a campaign may be as significant as designing the campaign itself. In particular, the first week of fundraising appears to be especially influential, so entrepreneurs need to put as much effort

as possible into securing initial traction. Furthermore, entrepreneurs are advised to be ready for additional questions from the crowd, particularly questions concerning the product and business model, the target market, and financial projections. However, the crowd is unlikely to pose additional questions about the team, so, a complete description of the team should be available from the outset of a campaign.

### **Limitations and further research**

The limitations of this study also provide opportunities for future research. The first limitation is related to the fact that I have analyzed the headlines of investor-entrepreneur discussions, not the discussions themselves. This approach allowed for a careful qualitative analysis of themes in the data, which was one of the objectives of this study. While analyzing headlines instead of complete texts is an approach frequently used in digital communication research (Allcott & Gentzkow, 2017; Lai & Farbroth, 2014), it would be beneficial to study complete discussion threads as well (Halpern & Gibbs, 2013; Williams, McMurray, Kurz, & Hugo Lambert, 2015). Given the magnitude of the data, I expect that this analysis should be performed using advanced analytical techniques such as machine learning. Second, I know what topic or criterion was discussed but do not account for the reputation or status of the individual posting a comment or question. Specifically, it would be of interest to study the role of investor “opinion leaders” (Li & Du, 2011) in the online crowdfunding due diligence process. It is possible that the crowdfunders that enjoy very good reputation may initiate information cascades, which will ultimately attract other potential investors. A social network analysis would be suitable for such an investigation. Third, I uncovered the general pattern of the investor-entrepreneur communication, which is L-shaped, but I did not delve deeper into the communication patterns with respect to a particular campaign (Costa, Yamaguchi, Traina, Caetano Traina, & Faloutsos, 2015). It would be beneficial to analyze this topic in more details. For example, researchers could try to uncover the distinction between different types

of communication decay patterns and their impact on the outcome of equity crowdfunding campaigns. Furthermore, I did not control for a founder`s experience in crowdfunding (Allison, Davis, Webb, & Short, 2017; Gafni, Marom, & Sade, 2019). It might be potentially interesting to analyze whether entrepreneurs manage the communication with the crowd differently depending on their previous experience of online fundraising. Finally, one of the limitations of this study is related to the issue of causality. Given the design of the study, it is impossible to discern whether a higher number of discussions makes campaigns more successful, or, alternatively, if more attractive and successful campaigns generate more attention from the crowd (Holland, 1986). Further investigation utilizing an experiment could potentially disentangle the influence of due diligence discussions from campaign-specific fixed effects.

Overall, my study is one of the first systematic attempts to analyze the role of investor-entrepreneur discourse on discussion forums in equity crowdfunding. As such, it lays the foundation for further research on impromptu investor-entrepreneur communication, due diligence, and investor decision making in the equity crowdfunding context.

## **CHAPTER FIVE – Conclusion**

This dissertation was completed in order to investigate the legalization of equity crowdfunding across several countries as well as to conduct an initial assessment of the role of investor-entrepreneur discussions in equity crowdfunding decision-making. These areas of inquiry are addressed by analyzing archival materials pertaining to the legalization process, as well as the data on the equity crowdfunding campaign dynamics. This final chapter aims to highlight some of the major findings of this study and emphasize a few promising avenues for research.

### **Theoretical contributions**

This study investigates the phenomenon of equity crowdfunding at the industry and organization levels, and, therefore, I aim to contribute to the streams of research on equity crowdfunding, related to both levels of analysis. Although the main contributions of this dissertation are to the literature on equity crowdfunding and entrepreneurial finance, I also provide valuable insights into the process of new industry emergence and evolution, as well as to the studies of industrial policy-making.

First, I offer a contribution to a small but growing body of literature on how national institutional environment shapes the industry of equity crowdfunding (Cumming, Vanacker, et al., 2019; Johan et al., 2018). Based on the analysis of the legalization of equity crowdfunding in the U.S., the UK, Australia, Canada, and New Zealand I propose that a close collaboration between crowdfunding entrepreneurs and relevant stakeholders, in particular, policymakers, has played a central role in creating vibrant equity crowdfunding ecosystems. Moreover, framing equity crowdfunding as a public interest phenomenon, which may simultaneously promote the public good and national competitiveness, was instrumental in securing support from politicians. More generally, I identify several country-specific



attributes that may help local equity crowdfunding ecosystem flourish such as a slowdown in the field of entrepreneurial finance, a shared view on the essential role of entrepreneurship in the economy, as well as a strong determination to adopt pro-crowdfunding policies rapidly.

Additionally, this study contributes to a better understanding of dynamic, on-going information cues produced during an equity crowdfunding campaign such as online dialogues between entrepreneurs and investors (Block, Hornuf, et al., 2018; Dorfleitner et al., 2018). At a more general level, I offer substantial evidence to support the view that communication between investors and entrepreneurs plays a vital role in crowdfunding decision-making (Estrin et al., 2018). More specifically, I argue that discussion boards adopted by many equity crowdfunding are instrumental in reducing information asymmetry inherent for new venture financing. In fact, the intensity of discourse, or, put differently, the number of discussion threads, may cause information cascades and attract unsophisticated investors to a campaign.

I also contribute to the research on selection criteria applied by crowd investors. The results of this study indicate that, similar to VCs and BAs, crowdinvestors take into account such new venture`s dimensions as a product, market, finance, and team. In line with previous studies of investor decision-making (Carpentier & Suret, 2015; Petty & Gruber, 2011), the focus of investors` attention shifts throughout a campaign. For example, the importance of finance-centered discussions significantly increases after the first week of fundraising. Although the evaluation pattern of the crowd follows that of professional investors, two considerable differences between the two exist. First, crowdinvestors do not tend to look for additional information about a project team during campaigns. I explain these results by the potential lack of trust in the information about a team quality provided by a team itself. Second, the crowdinvestor`s due diligence cycle is very short and includes product-focused queries even at a later stage, which may be attributed to the pace and specific characteristics of crowdfunding campaigns such as an increased emphasis on a product.

More generally, this study also adds to the literature on new industry emergence and policy-making (Georgallis et al., 2018; Gurses & Ozcan, 2015). This analysis suggests that the process of new industry emergence and change may be less conflictual than previously proposed if several boundary conditions are met. Primarily, the proponents of a new industry should try to leverage the “public interest” frame, which signifies that a new industry or product, in some way, contributes to the public good. Additionally, this study enhances our understanding of the role of government actors in the legalization process with respect to emerging industries or products requiring regulatory approval. The results of this investigation illustrate that government policy on emerging industries is defined endogenously rather than exogenously. Specifically, policymakers are more likely to proceed with the legalization of an emergent industry if they perceive it as a powerful means to attain their goals, such as enhancing national competitiveness. Also, several contributing factors affect government stance on new industries such as pressure exerted by relevant stakeholders, the general government strategy in a given organizational field as well as the adoption of an innovation in question by another country, which is perceived as a competitor.

### **Implications for practice**

This study also has practical implications for policymakers seeking to revise regulations in light of innovations as well as for entrepreneurs aspiring to raise funding, and investors planning to invest on one of equity crowdfunding platforms.

#### **Policymakers**

This study offers some important findings for policymakers facing the need to react to recent innovations such as equity crowdfunding. First, governments are advised to be more accommodating with regard to the possible introduction of regulatory changes. Inflexible regulatory environments are likely to hinder entrepreneurial innovations seriously and may

even prompt entrepreneurs to launch puzzling for regulators, yet high-potential ventures in other countries with a more liberal regulatory approach.

In contrast, a coherent policy towards equity crowdfunding or other innovations may be instrumental in securing a country's leadership status in a given field. Furthermore, policymakers are advised to coordinate with regulators and industry associations to assure a complete and swift adoption of new rules. As the U.S. example demonstrated, in dynamic industries such as equity crowdfunding the first mover advantage may not endure as other countries watch intently for innovations that may be quickly and easily copied.

### **Entrepreneurs**

Any entrepreneur intending to raise money on equity crowdfunding platforms should be aware that mastering investor communication during a campaign is a task that cannot be taken lightly. A team that is able to avoid a conflict with the crowd might be perceived as being more capable of establishing better customer relationships as the pool of crowd investors is very diverse and, depending on the industry, may consist of product's potential consumers. Months of preparation, time and resources spent on a professional video, spreadsheets and a business plan may be wasted if a discussion between a team and potential crowdfunders leads to a misunderstanding or ultimate breakdown in the relations between the two parties. These narratives are recorded and cannot be easily deleted. Thus, they are an enduring signal that could serve as an endorsement of the quality or might undermine an entrepreneur's reputation. Also, entrepreneurs should be ready to go beyond the initial campaign description and respond to as many additional questions as necessary. Particular attention should be paid to the queries regarding the product and business model, the market, and the financial projection. While the crowd is unlikely to pose additional questions about the team, it does not mean that this criterion lacks importance. Instead, it signifies that a comprehensive description of a venture's management should be available from the beginning

of a campaign. Overall, responding to Q&A as well the general ability to run a campaign and stay diplomatic regardless of the circumstances needs to be taken very seriously by entrepreneurs as these skills serve as their proxies for entrepreneurial ability.

More generally, entrepreneurs should be informed of the fact that the future of their companies may hinge on the perception of their ventures among different stakeholders. To give an example, pioneering businesses operating in regulated industries may gain legal acceptance if their framing is complementary to the goals of regulators and policymakers. The results of this study indicate that the framing of new ventures as champions of the public interest and national competitiveness may be conducive to securing strong political support from government actors. Thus, when reflecting upon their business ideas, entrepreneurs are suggested to target broader societal issues such as global warming, unemployment, or gender equality in one way or another.

### **Investors**

Equity crowdfunding has changed the landscape of entrepreneurial finance and empowered the general public to participate in new venture funding, previously restricted to a closed circle of professionals. It is vital that individuals lacking expertise and privileged access to investment networks take advantage of the unparalleled opportunities offered by equity crowdfunding.

Everyday investors seeking to invest money on equity crowdfunding platforms need to familiarize themselves with quality control mechanisms at their disposal. Even though comprehensive due diligence may not be readily available, investors should make good use of online discussion boards, which may offer many advantages. While campaign videos and pitch documents warrant proper consideration, great emphasis should also be placed on impromptu discussions with entrepreneurs. In addition to receiving immediate feedback from

a team, the discussion mechanism allows investors to leverage the wisdom of the crowd as all messages posted by any user can also be read and interpreted by others. Crowdinvestors would not be able to pick high potential investments by relying on the crowdfunding discussion mechanism only; however, this mechanism is very efficient at eliminating less attractive deals.

### **Limitations**

The research design and data collection methods impose inherent limitations to this study. First, the systematic analysis of the legalization processes of equity crowdfunding is limited by the exclusive reliance on historical archival data. On the one hand, archival research is less susceptible to recall or post-hoc rationalization biases typical for interviews or surveys (Bucheli, 2014). On the other hand, unlike field research, which allows an investigator to interview various stakeholders, archival methods necessarily entail heavy dependence on written evidence. The documentary sources utilized in this study such as transcripts of Congressional (U.S.) or parliamentary hearings offer a detailed account of what was said during a specific session. However, any political process is not restricted to formal procedures such as parliamentary hearings. As a result, many important decisions are made during informal, undocumented discussions, which, oftentimes, take place behind closed doors. Obviously, I could not track or attend these meetings in person. Thus, the completeness rather than the quality of the data might be a potential issue of this study.

Furthermore, the regularities observed in the legalization of equity crowdfunding could enhance our understanding regarding other legalization processes that take place in developed countries with strong formal institutions. Many emerging countries are characterized by dysfunctional institutions. Consequentially, their legalization processes can be more erratic than described in this study. Also, authoritarian regimes may exert tight

control over public media. Thus, the discursive processes analyzed in this dissertation may not play such a prominent role there in comparison to the United States or the United Kingdom.

Finally, the qualitative analysis conducted in Chapter Four of this dissertation offers a complete yet slightly simplified view of the themes found in online discussions between entrepreneurs and investors. I focused on the headlines of the discussions and favored parsimonious coding labels over more elaborate descriptions of the themes. This approach facilitated further statistical analysis of the results and was perfectly suitable for this study, which aimed to provide a first systematic analysis of the investor-entrepreneur communication; however, some slight nuances and emergent meanings might have been lost during the process.

### **Further research**

The results of this dissertation lay the foundations for several avenues of future research. First, moving beyond the case study format, further examinations could test how various institutional factors such as the size of VC market, the presence of pro-entrepreneurship policies, and macroeconomic dynamics shape government policy on equity crowdfunding across a large sample of countries. It will be of scientific interest to include developing countries such as India or China in this study. Large populations, along with the increasing Internet penetration rate and growing middle-class wealth, generate strong momentum for equity crowdfunding.

In addition to the themes identified in the online discussions between investors and entrepreneurs in this analysis, further studies could conduct an even more thorough examination of these discussions using advanced research methods. For example, scholars could carry out a qualitative narrative analysis to understand how investors make sense of new ventures through interactions with entrepreneurs as well as how entrepreneur`s framing

of their projects shapes the perception of the crowd (Garud & Giuliani, 2013). Alternatively, researchers could utilize advanced analytic techniques such as social network analysis to study whether discussions initiated by prospective investors that enjoy very good reputation may initiate information cascades, which will ultimately attract other potential investors (Hoang & Antoncic, 2003).

Furthermore, scholars are encouraged to conduct more of longitudinal studies as well as studies that analyze multiple platforms across several countries. We need to develop a more complete understanding of selection criteria used by crowdinvestors, and whether those criteria change depending on the macroeconomic environment or platform parameters. Also, given the significant presence of non-sophisticated investors on equity crowdfunding platforms, it would be of considerable interest to find out whether the decision-making procedures of these investors evolve over time, and, potentially, if they develop evaluation patterns similar to those of professional investors.

At a more general level, scholars could acquire a more thorough understanding about the legalization of new types of ventures operating in regulated markets by analyzing the legalization process in emerging countries characterized by “institutional voids” (Puffer et al., 2010). Governments of numerous developed countries may be rather skeptical about innovations that target established and relatively well-functioning industries such as the taxi market. By comparison, ridesharing alternatives such as Uber were not the subject of widespread criticism in emerging markets because of the appalling state of public transportation or taxi services, to be more specific (Uzunca et al., 2018). Further studies could investigate if appealing to “public interest” is particularly useful in developing markets as these countries may be fraught with fundamental problems requiring immediate attention.

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## Appendices

Table 1. Organizing framework for research on Equity crowdfunding/overview of main themes

Focus/theme	Levels of analysis used	Examples of DVs used	Examples of IVs used	Examples of studies
<b>Determinants of funding success</b>	Platform level	Funding success	<b>Discourse on platforms</b> ; funding dynamics; campaign and team characteristics; platform characteristics	(Ahlers et al., 2015; Block, Hornuf, et al., 2018; Dorfleitner et al., 2018; Lukkarinen et al., 2016; Vulkan et al., 2016), <b>this study</b>
The ECF investor profile: motivation and decision making determinants	Individual/platform levels	Decision to invest; decision making criteria; investor motivation	Investor motivation; investor expertise and other characteristics such as gender; funding dynamics; discourse on platforms;	(Ahlers et al., 2015; Guenther et al., 2017; Hervé, Manthé, Sannajust, & Schwienbacher, 2019; Hornuf & Schwienbacher, 2018; Mohammadi & Shafi, 2018; Moysidou & Spaeth, 2016)
Profile of ECF-seeking ventures and the reasons for choosing ECF over other funding sources	Individual (campaign) level	ENT decision to seek equity crowdfunding; Reasons for seeking funds from ECF	Venture and team characteristics; previous experience of ENT with banks or VCs	(Belleflamme et al., 2014; Brown, Mawson, Rowe, & Mason, 2017; Walthoff-Born, Schwienbacher, & Vanacker, 2018)
The place of ECF in entrepreneurial finance landscape; relationship between ECF and other sources of funding	Industry/individual (campaign) levels	Funding from professional investors before or after an ECF campaign; views of investors and ENT towards ECF; startup performance after receiving money from ECF.	Funding received on ECF platforms; Funding received by prof. investors during, before or after a campaign; ownership structure of ECF projects.	(Brown et al., 2017; Cumming, Meoli, & Vismara, 2019; Estrin et al., 2018; Hornuf et al., 2018; Signori & Vismara, 2018; Wang, Mahmood, Sismeiro, & Vulkan, 2019)
<b>ECF policies and regulations</b>	Industry level	Impact of regulations on ECF market; legalization processes; regulations	Regulations; <b>social discourse</b> ; Institutional characteristics; preferences of stakeholders	(Cumming & Johan, 2013; Cummings, Rawhouser, Vismara, & Hamilton, 2019; Hornuf & Schwienbacher, 2017; Horváthová, 2018), <b>this study</b>

Table 2 Timeline of the main events in the US related to the emergence and legalization of equity crowdfunding

<b>Date</b>	<b>Macroeconomic events</b>	<b>Crowdfunding events</b>
2001		ArtistShare, one of the first internet fundraising platforms for creative activities, has been created.
2005		Kiva Microfunds, an internet microfinancing platform, has been established.
2005		Prosper Marketplace, one of the first peer-to-peer lending platforms, has been created.
2006		The launch of Lending Club – one of the first peer-to-peer lending websites.
2007-2008	The global financial crisis significantly reduced the supply of funding for entrepreneurs.	
2007-2008	The winning US Presidential candidate, Barack Obama, managed to raise more than \$500 million online, mostly through small (<\$100) contributions.	
2008		The launch of Indiegogo – one of the leading reward-based crowdfunding platforms.
2009	The US unemployment rate reaches 10% - the highest number since 1983.	The launch of Kickstarter – a leading reward-based crowdfunding platform.
2009-2011		A Facebook campaign aimed to buy the Pabst Brewing Company collected more than \$200 million in pledges.
August 2010		Three entrepreneurs created the Startup Exemptions network aiming to legalize equity crowdfunding.
Feb-Nov 2011		Hearings in the House of Representatives dedicated to the legalization of equity crowdfunding took place. The House ultimately approved the Bill.
June 2011		The Pabst Beer campaign has been shut down by the SEC.
2011-2012	The Jumpstart Our Business Startups (JOBS) Act campaign was launched.	
2011-2012	The 2012 US presidential election campaign took place.	
Sep 2011		Equity crowdfunding provision was included in the JOBS Act.
December 2011		The North American Securities Administrators Association (NASAA) voiced public opposition to the crowdfunding reform.
Nov 2011- March 2012		The crowdfunding bill was introduced to the Senate. Ultimately, it passed the Senate and became a part of the Jobs Act.
2012		Fundable was founded as one of the first US crowdfunding platform, which, to a limited extent, supported equity crowdfunding.  Wefunder was established as the first US equity crowdfunding platform fully dedicated to equity crowdfunding.
April 2012	Barack Obama signed the JOBS Act into law.	
September 2013		The SEC finally eliminated the ban on general solicitation. Equity crowdfunding became legal for accredited investors.
May 2016		Final regulations with respect to equity crowdfunding have been adopted. Equity crowdfunding became legal for both accredited and everyday investors.



Table 3 Categories and related coding scheme

<b>100: Criticism</b>	<b>110: Fraud, risk &amp; protection</b>	<b>111: Fraud</b> <b>112: Risk</b> <b>113: Investor protection</b> <b>114: Other</b>
	<b>120: Criticism of the idea</b>	<b>121: Lack of guidance from professional investors</b> <b>122: Potentially unproductive entrepreneurship</b> <b>123: There are better ways to raise funding</b> <b>124: Putting product above business model</b>
<b>200: Advancing the field of entrepreneurship</b>	<b>210: Spur entrepreneurship</b>	<b>211: Community benefits of CF</b> <b>212: Enhance relationship with investors</b> <b>213: Connection to market</b> <b>214: Other</b>
	<b>220: Enhance industry dynamics</b>	<b>221: New deals for investors</b> <b>222: Increased competition for traditional investors</b> <b>223: New businesses started</b>
	<b>230: Problems with entrepreneurship</b>	<b>231: Fewer businesses started</b> <b>232: Regulatory burden</b> <b>233: Other</b>
<b>300: Funding</b>	<b>310: Bridge the funding gap</b>	<b>311: Providing access to funding</b> <b>312: Funding gap</b>
	<b>320: Supporting lower potential ventures</b>	<b>321: Small deals</b> <b>322: Small companies</b> <b>323: Seed &amp; early stage</b> <b>324: Outside of traditional investor scope</b> <b>325: Other</b>
<b>400: Public interest</b>	<b>410: Jobs</b>	<b>411: New jobs thanks to CF &amp;/or free flow of capital</b> <b>412: Unemployment</b>
	<b>420: The state of the economy</b>	<b>421: Economic growth thanks to CF/flow of capital</b> <b>422: Stagnation</b>
	<b>430: Democratization</b>	<b>431: Turn the general public into investors</b> <b>432: Empowerment of entrepreneurs</b> <b>433: Make finance more meritocratic</b> <b>434: Elitism of finance</b>

Table 4 Coding frequencies, grouped by stakeholder

	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
	<i>Politicians</i>	<i>Entrepreneurs</i>	<i>Investors</i>	<i>Legal experts</i>	<i>Entrepreneurship experts</i>
<b>100 Criticism</b>	<b>0.17</b>	<b>0.07</b>	<b>0.04</b>	<b>0.61</b>	<b>0.12</b>
110 Fraud, risk & protection	0.19	0.06	0.05	0.69	0.02
120 Criticism of the idea	0.11	0.11	0.00	0.22	0.56
<b>200 Advancing the field of entrepreneurship</b>	<b>0.31</b>	<b>0.48</b>	<b>0.07</b>	<b>0.04</b>	<b>0.10</b>
210 Spur entrepreneurship	0.29	0.58	0.03	0.02	0.08
220 Enhance industry dynamics	0.38	0.27	0.14	0.05	0.16
230 Issues with entrepreneurship	0.28	0.52	0.07	0.07	0.07
<b>300 Funding</b>	<b>0.32</b>	<b>0.40</b>	<b>0.07</b>	<b>0.15</b>	<b>0.05</b>
310 Bridge the funding gap	0.40	0.40	0.10	0.07	0.03
320 Supporting lower potential ventures	0.23	0.40	0.04	0.26	0.08
<b>400 Public interest</b>	<b>0.41</b>	<b>0.40</b>	<b>0.07</b>	<b>0.02</b>	<b>0.09</b>
410 Jobs	0.54	0.28	0.10	0.03	0.05
420 The state of economy	0.44	0.41	0.08	0.05	0.03
430 Democratization	0.17	0.60	0.02	0.00	0.21

Table 5 Summary table with illustrative quotes

Raw data themes/quotes	Higher-order themes	Aggregate/general dimensions
<p>“There are legitimate concerns that exempting crowdfunding from securities regulations would open or expand opportunities for fraud”</p>	<p>Fraud, risk, and protection</p>	
<p>“...and I can tell you your crowdfunding market will cease to exist because the level of fraud will simply destroy any confidence of anyone”.</p>		
<p>“The thing about crowdfunding is that it brings together unsophisticated issuers with unsophisticated investors... What could possibly go wrong?”</p>		
<p>“By selling equity through crowd funding, an entrepreneur could be stuck with a crowd of investors who may not know anything about the market or industry—or investing, for that matter—and may bring no other value”.</p>		<b>Criticism</b>
<p>“For small businesses that don't attract interest from angel investors, there are other options available that are better than crowd equity”.</p>	<p>Criticism of the idea</p>	
<p>“But what worries me is that by definition almost, crowd funding takes away that getting-to-know-you element”.</p>		
<p>“Anyone who is bright, driven, and has a great idea can gather a supportive community around himself. Crowdfunding allows that entrepreneur to turn his community into a capital source”.</p>		
<p>“Crowdfunding will create new opportunities for small businesses to find the financing they need to get off the ground, expand and create jobs”.</p>	<p>Spur entrepreneurship</p>	
<p>“Market validation: Crowdfunding on Indiegogo enables entrepreneurs raising money to test their market and prove demand”.</p>		
<p>“The ones the crowd gets behind and helps succeed will be the ones the VC's will line up to help grow. And you know what? In the end, everyone will benefit - the entrepreneur, the crowd that supported them and the VC that took them to the next level”.</p>		
<p>“For those companies with blockbuster potential, crowdfunding alone simply won't provide enough money to support high-velocity growth...That means some crowdfunded ventures will find their way into the traditional venture capital pipeline”.</p>	<p>Enhance industry dynamics</p>	<b>Advancing the field of entrepreneurship</b>
<p>“They raised over \$24,000 and are now selling their products, creating jobs, and obtained investor -- gained interest from VCs”.</p>		
<p>“...but the overriding consideration was the current U.S. securities laws would present an insurmountable obstacle where a securities regulation in Britain is significantly better suited for this type of financial innovation”.</p>		
<p>“Our nation's small businesses have suffered disproportionately during the downturn and continue to struggle more than their larger counterparts”.</p>	<p>Problems with entrepreneurship</p>	
<p>“However, the potential of crowdfunding as a capital formation tool for early stage for profit companies has been impeded by uncertainty with respect to whether such transactions are subject to the registration requirements of the federal securities laws”.</p>		
<p>“If crowdfunding can finance a candidate's campaign and show a matter of grassroots support for what you're trying to achieve, then certainly we should be able to permit crowdfunding to empower citizens to invest seed money for American entrepreneurs and innovators”.</p>		
<p>“So, crowd funding opens up more sources of capital by bringing together entrepreneurs who wouldn't ordinarily get financing with investors who wouldn't traditionally be investing in -- in startup financing”.</p>	<p>Bridge the funding gap</p>	<b>Funding</b>
<p>“I believe that crowdfunding could spark a revolution in small business financing and help close what some people have called the small business capital gap”.</p>		
<p>“Besides, isn't this the type of innovation we should be encouraging? Unlike exotic derivatives and super-fast trading algorithms, crowdfunding generates capital for job-creating small businesses”.</p>	<p>Supporting lower potential ventures</p>	
<p>“I have been following the progress of new crowd-funding platforms in recent</p>		

months, and it is now clear that this new financing mechanism can help strapped early-stage ventures, especially social enterprises”.

“...the vast majority of venture and angel funds are reserved for tech companies with big growth potential. The result is that far too many entrepreneurs can’t start or grow their ventures—and can’t provide jobs and new products and services to spur our economy”.

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“Allowing for an exemption for Crowdfund Investing, which includes prudent protections for investors, will spur innovation among your constituents, create jobs, increase consumer spending, and reinvigorate our economy”.

“Based on SBA statistics on normal business attrition (closure, merger, sale) times a trending growth curve by the U.S. Census Bureau Statistics about Business Size we estimate that the 500,000 companies created on CFI platforms over the next 5 years have the ability to create the 1.5M net new jobs”.

Jobs

“The case for the JOBS Act goes like this: Small companies create jobs. The easier it is to fund a small company, the more jobs there will be. Federal rules make it harder for start-ups to raise capital. Ergo, relax the rules”.

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“I believe our witnesses will convince even the skeptics among us that there is enormous potential here for job creation and a stronger, more vibrant economy”.

“And we think the platforms like these can help them overcome that hurdle and be absolutely transformative for an economy”.

The state of the economy

**Public interest**

“Today in the United States, Internet-based crowdfunding is utilized to raise millions of dollars for charitable organizations and nonprofits. We should take this experience and apply it to growing our economy”.

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“In today’s fast-paced world of innovation and innovators, all Americans, rather than just banks and venture capitalists and so-called qualified investors, high net worth individuals, should be able to invest in the next Google, Apple, Facebook, their local coffee shop, or their favorite beer company”.

Democratization

“It is important that crowdfunding exist because it democratizes access to start-up capital”.

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“Crowdfunding on Indiegogo is people-powered finance”.

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Table 6 Overview of newspaper articles

		<b>Newspapers/news websites</b>	
<b>Country</b>	<b>Timeframe</b>	<b>Newspaper titles</b>	<b>Number of articles</b>
UK	2011-2014	Guardian, Observer, Daily Telegraph, Independent, Financial Times	130
Canada	2011-2014	Toronto Star, The Vancouver Sun, National Post, The Globe and Mail, The Gazette, The Calgary Herald, Ottawa Citizen, The Leader Post, CBC	61
Australia	2011-2014	The Sydney Morning Herald, The Age, The Australian, ABC, The Australian Financial Review	65
New Zealand	2011-2014	The New Zealand Herald, National Business Review, The Dominion Post, The Press	55

Table 7 Overview of government documents

<b>Country</b>	<b>Government materials pertinent to the regulatory reform</b>	<b>Number of pages</b>
United Kingdom	Transcripts of Parliamentary Debates (Hansard) on equity crowdfunding; FCA (Financial Conduct Authority), a Policy Statement, and a Consultation Paper on crowdfunding.	242
Australia	Transcripts of Parliamentary Debates (Hansard) on equity crowdfunding; Submission of different parties (e.g., The Australian Securities Exchange, investors, crowdfunding advisors) in relation to CAMAC's Discussion Paper on Crowd Sourced Equity Funding (The Corporations and Markets Advisory Committee).	368
Canada	Submissions regarding CSA Notice 45-311 that includes crowdfunding provisions (all jurisdictions except Ontario); Submissions to Ontario Securities Commission Consultation "Consideration for New Capital Raising Prospectus Exemptions";	669
New Zealand	Transcripts of Parliamentary Debates (Hansard) on equity crowdfunding; 2014/2015 Report of The House of Representatives Commerce Committee; New Zealand VC and BA associations submission regarding Financial Markets Conduct Bill Exemptions;	79

Table 8 Country-level data

Source of data	Indicators used
Global Entrepreneurship Monitor (GEM) -Entrepreneurial framework conditions	<ul style="list-style-type: none"> <li>- Financing for Entrepreneurs</li> <li>- Government support and policies</li> <li>- Taxes and bureaucracy</li> <li>- Governmental Programs</li> <li>- Internal Market Openness</li> </ul>
Global Entrepreneurship Monitor (GEM) -Entrepreneurial Behavior and Attitudes	<ul style="list-style-type: none"> <li>- Total Early-Stage Entrepreneurial Activity</li> <li>- Entrepreneurial Intentions</li> <li>- High Status To Successful Entrepreneurs</li> <li>- Perceived Opportunities</li> <li>- Perceived Capabilities</li> <li>- Financial Market Development</li> </ul>
Global Entrepreneurship Monitor (GEM) Adult Population Survey	<ul style="list-style-type: none"> <li>- Informal Investors Rate</li> <li>- Nascent Entrepreneurship Rate</li> <li>- Media Attention for Entrepreneurship</li> </ul>
WEF Global Competitiveness Index	<ul style="list-style-type: none"> <li>- Venture Capital Availability</li> <li>- Country capacity to retain talent</li> <li>- Country capacity to attract talent</li> <li>- Financing through a local equity market</li> <li>- Nature of competitive advantage</li> </ul>
World Bank, Bureau of Labor Statistics (U.S.)	<ul style="list-style-type: none"> <li>- Number of businesses registered</li> </ul>
CB Insights	<ul style="list-style-type: none"> <li>- Statistics on venture capital funding</li> </ul>
Statista	<ul style="list-style-type: none"> <li>- Statistics on venture capital funding</li> </ul>

Table 9. Overview of main events during the legal acceptance process

Date	United Kingdom	Canada	Australia	New Zealand
2011	Crowdcube was established as one of the first equity crowdfunding platforms in the world.			Financial Markets Conduct Bill was introduced to New Zealand's Parliament.
2012	Seedrs was established as one of the first equity crowdfunding platforms and received approval from the regulator.	Ontario provincial security regulators initiate consultations with various stakeholders on "Crowdfunding exemption."	First discussions held in the Australian Parliament about crowdfunding. Regulatory changes are not proposed.	Financial Markets Conduct (including equity crowdfunding) regulations are reviewed by different government agencies and external stakeholders.
2013	Crowdcube received regulatory approval from the regulator.  Consultations with various stakeholders have been initiated by the regulator and draft regulations have been proposed.  Debate on crowdfunding and crowdsourcing was held in the UK Parliament.	Selected (e.g., Saskatchewan) provincial security regulators initiate consultations with various stakeholders on "Crowdfunding exemption."  First equity crowdfunding exemption has been approved in Saskatchewan.	Australian Corporation and Markets Advisory Committee (CAMAC) initiated a public inquiry into equity crowdfunding.	
2014	Specific regulations with respect to equity crowdfunding and peer-to-peer finance have been introduced by the regulator after consultations with the general public	Provincial securities regulators propose new crowdfunding rules to the general public.	Further discussions regarding the legalization of equity crowdfunding are held in the Australian Parliament.  Based on the results of the public inquiry, the CAMAC publishes proposals for a regulatory framework on equity crowdfunding.	New Zealand's Financial Markets Conduct Act 2013 ('the FMC Act') came into force, making equity crowdfunding legal for licensed platforms.  In August 2014, Snowball effect became first New Zealand's licensed equity crowdfunding platform.
2015-2016		Selected provinces have adopted multilateral harmonized ECF regulations (e.g., Manitoba, Ontario, Quebec, New Brunswick, and Nova Scotia) with Ontario playing the leading role in the process.		
2016	Post-implementation review of crowdfunding regulation was initiated by the regulator.	Alberta adopted a prospectus exemption concerning equity crowdfunding.		
2017			Australian Parliament passes <i>The Corporations Amendment (Crowd-sourced Funding) Act 2017</i> , which legalizes equity crowdfunding for the general crowdfunding.	
2018	Changes to equity crowdfunding have been proposed by the regulator.  Crowdcube and Seedrs have been named by the Beauhurst as the leading UK equity investors according to the number of deals. Overall, these two platforms dominate the equity investment landscape for seed and early-stage businesses.		Australian Parliament introduced some changes to ECF regulation	

Table 10 Process of regulatory acceptance of equity crowdfunding

Country	Public discourse on ECF regulatory reform started	Initial regulatory acceptance of equity crowdfunding
The United States of America	2011	2012
The United Kingdom	2011	2011
Australia	2011	2017
Canada	2011	2013
New Zealand	2012	2013

Table 11 Narratives on competitiveness across countries

Codes	Categories	Frame
<i>United Kingdom</i>		
- British global leadership in CF; - Need for coherent CF policy; - May lose their status due to poor regulation.	British leadership in CF	Global competition
- The United States has strangled the baby at birth; - Lose the opportunity if go down the U.S. way.	U.S. failure to regulate CF	
<i>Canada</i>		
- Be more attractive to entrepreneurs; - Adopt similar to other countries policies; - Be at the forefront of CF (regulation).	Ways to be more competitive	Competitiveness of Canada
- Mass emigration of entrepreneurs; - Red tape; - Funding gap.	Issues that are hurting competitiveness	
<i>Australia</i>		
- Being behind other countries in entrepreneurship; - Emigration of entrepreneurs to other countries; - NZ superiority in CF.	Country issues/problems	Competitiveness of Australia
- Stimulate/entrepreneurial ecosystem; - CF could make Australia more competitive; - Adopt similar to other countries CF and ENT policies.	Opportunities (to be more competitive)	
<i>New Zealand</i>		
- Leadership in Asia-Pacific; - World leadership in CF, and financial regulation in general.	CF leadership of NZ	Competitiveness/leadership of NZ

Table 12 Coding frequencies, grouped by stakeholder

Country	Criticism	Advancing the field of entrepreneurship	Funding	Public interest	Competitiveness
Australia	0.14	0.15	0.15	0.24	0.31
Canada	0.24	0.16	0.12	0.23	0.25
New Zealand	0.20	0.31	0.22	0.20	0.08
United Kingdom	0.12	0.28	0.10	0.36	0.14



Table 13

## Overview of equity crowdfunding platforms` features

<b>Name and country</b>	<b>Target audience</b>	<b>Type of campaign certification provided</b>	<b>Online forum</b>	<b>Possibility to send a private message to entrepreneur</b>	<b>The funding success mechanism</b>	<b>Overfunding mechanism</b>
Crowdcube (UK)	Non-professional and prof. <sup>2</sup> investors	Commercial and legal certification	Exists but visible only to registered users	Yes	A minimum target must be reached.	Possible; additional funds are raised at the same terms as during the main funding round.
Our Crowd (Israel)	Only prof. investors	Due diligence	Potentially available	No	A minimum target must be reached.	No, a minimum target is set from the outset.
Seedrs (UK)	Non-professional and prof. investors	Commercial and legal certification	Exists but visible only to registered users	No	A minimum target must have been reached.	Possible; additional funds are raised at the same terms as during the main funding round.
Syndicate Room (UK)	Only prof. investors	Due diligence	Exists but visible only to registered users	No, but it is possible to arrange a one-to-one call with a founder.	A minimum target must have been reached.	Possible; additional funds are raised at the same terms as during the main funding round.
Fundable (USA)	Only prof. investors	Legal certification	Not available	Possible after an investor has been granted access to a business plan.	Depends on terms negotiated and agreed upon by an entrepreneur and investors.	Depends on terms negotiated and agreed upon by an entrepreneur and investors.
Companisto (Germany)	Non-professional and prof. investors	Commercial and legal certification	Exists and visible to everyone. Only registered users may post comments.	No	A minimum target must have been reached.	Amount raised may not exceed a financing target.
Wefunder (USA)	Non-professional and prof. investors	Legal certification	Exists and open for everyone	No	A minimum target must be reached.	Information on overfunding is not available
Invesor (Finland)	Non-professional and prof. investors	Legal certification	Exists and visible to everyone. Only registered users may post comments	No	A minimum target must have been reached.	Depending on the target company's official decisions & pre-set limits, subscriptions exceeding the maximum may be cut or allocated fewer shares.

<sup>2</sup> Depending on regulations, this may also refer to “accredited investors”, in other words, investment professionals, high-net worth individuals or individuals who receive professional investment advice.

Table 14

## Main coding categories with illustrative quotes

Coding examples	Includes following topics	Coding category
<p>“Benefits to Kolanot Customers”</p> <p>“Does the consumer need your App to pay for something?”</p> <p>“A few questions around the model and growth”</p> <p>“Intermediaries business model”</p> <p>“Is your packaging recyclable?”</p> <p>“If PayPal Mobile, ApplePay, Qkr and Zapper have failed to become ubiquitous, how will you beat them with only £500k”</p>	<p>Business model</p> <p>Strategy</p> <p>Product and future offerings</p> <p>Customer service</p> <p>Unique selling point/differentiation</p> <p>Patent/IP</p>	<b>Product &amp; model</b>
<p>“Idea regarding brand promotion and conscious linking”</p> <p>“hi what other participating arenas do you have lined up”</p> <p>“Route to market”</p> <p>“Monza/Revolut Competition?”</p> <p>“Competitors Landscape”</p> <p>“Whats to stop pcws copying you and beating you to launch?”</p>	<p>Existence of market</p> <p>Characteristics of market</p> <p>Market size</p> <p>Competition</p> <p>Regulations</p> <p>Potential acceptance of product</p>	<b>Market</b>
<p>“Share capital and dividends”</p> <p>“High valuation leaves limited prospect for a return for investors...”</p> <p>“Funding and Valuations”</p> <p>“Revenue and profit against projections”</p> <p>“how are shares valued and traded outside of funding?”</p>	<p>Financial projections</p> <p>Exit</p> <p>Revenue and return potential</p> <p>Valuation</p> <p>Use of proceeds</p>	<b>Financial</b>
<p>“Expense budget-employees”</p> <p>“CTO has left”</p> <p>“Founder remuneration”</p> <p>“New Chairman”</p> <p>“Gender balance/diversity”</p>	<p>Project founders and employees</p> <p>Team reputation</p> <p>Management of crowdfunding campaign</p> <p>Gender balance of the team</p> <p>Team responses to queries</p>	<b>Team</b>
<p>“Clarity on 90%+ Funding to date”</p> <p>“Funding progress”</p> <p>“For a company who’s already raised 20 million, why use crowdsourcing to get you over the line?”</p> <p>“Why not VC/PE? Why Crowdfunding?”</p> <p>“Im suprised you dont offer samples as a reward”</p>	<p>Fundraising strategy of a campaign</p> <p>Previous funding rounds</p> <p>Reasons for choosing CF instead of other sources of funding</p> <p>Clarifications about CF mechanism</p> <p>Crowdfunding rewards</p>	<b>Fundraising strategy</b>
<p>“My Sincere &amp; Honest View to Genome !!”</p> <p>“Congrats Guy!”</p> <p>“Hidden pages and assumptions”</p> <p>“Looks good, but lots of questions :-/”</p> <p>“The only reason am investing...”</p>	<p>General information request</p> <p>Endorsements</p> <p>General feedback</p> <p>Miscellaneous</p>	<b>Other</b>

Table 15

Summary of discussion themes, grouped by campaign stage

Stage	100 Product & model	200 Market	300 Finance	400 Team	500 Fundraising Strategy	600 Other
Overall	2,420 (30.96%)	1,252 (16.02%)	2,537 (32.46%)	227 (2.90%)	1,559 (19.95%)	976 (12.49%)
First week	1,035 (29.50%)	537 (15.30%)	1,250 (35.62%)	105 (2.99%)	665 (18.67%)	443 (12.34%)
After 1 week	1,385 (32.16%)	715 (16.60%)	1,287 (29.88%)	122 (2.83%)	904 (20.99%)	543 (12.61%)

Table 16

T-test of the (in-)equality of distribution of different topics across campaign stages

Stage	100 Product & model	200 Market	300 Finance	400 Team	500 Fundraising Strategy	600 Other
p-values	0.314	0.258	0.011	0.842	0.108	0.777
t-statistic	(-1.009)	(-1.133)	(2.575)	(0.2)	(-1.614)	(-0.284)

Table 17

Summary statistics

Variables	(1) min	(2) max	(3) mean	(4) sd
Funding goal	50,000	2,194,000	380,786.848	308,567.739
Equity offered	0.010	0.456	0.130	0.075
Pre-money valuation	145,600	104,000,000	6,018,385.30	10,544,955.410
Campaign duration	6	143	46.507	20.367
Discussions	0	123	16.266	14.957
Funds raised	260	5,134,130	444,093.609	625,018.798
Number of investors	10	3,205	343.645	443.056
Funding rate	0.001	15.061	1.098	1.187
Ongoing campaigns	10	150	67.884	20.715
Competing investments	763,310	46,688,930	13,939,174.446	7,444,484.183
Product & Model	0	82	8.768	9.596
Market	0	33	4.536	5.152
Finance	0	53	9.192	7.995
Team	0	10	0.822	1.589
Fundraising strategy	0	54	5.649	7.599
Other	0	51	3.536	4.468

Table 18  
Correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
<i>Dependent variables</i>																	
(1) log (funds raised)																	
(2) log (number of inv.)	0.85																
(3) sqrt (funding rate)	0.78	0.79															
<i>Independent variables</i>																	
(4) Discussions	0.57	0.69	0.48														
(5) Product & bus. model	0.42	0.52	0.35	0.85													
(6) Market	0.41	0.50	0.38	0.73	0.76												
(7) Finance	0.58	0.65	0.52	0.78	0.52	0.54											
(8) Team	0.28	0.31	0.21	0.49	0.45	0.37	0.41										
(9) Fundraising Strategy	0.50	0.62	0.41	0.82	0.55	0.40	0.67	0.40									
(10) Other	0.34	0.44	0.26	0.75	0.58	0.39	0.41	0.24	0.60								
(11) Ind. classification 1	-0.18	-0.25	-0.17	-0.06	-0.04	0.03	-0.15	0.00	-0.14	0.04							
(12) Ind.classification 2	0.02	-0.03	0.05	-0.02	-0.00	0.03	0.00	0.04	-0.07	-0.01	-0.12						
(13) Funding goal	0.50	0.39	0.10	0.52	0.37	0.24	0.45	0.28	0.51	0.43	-0.00	0.00					
(14) Pre-money valuation	0.42	0.39	0.21	0.56	0.34	0.20	0.52	0.20	0.57	0.50	0.02	0.02	0.66				
(15) Equity offered	-0.03	0.03	0.09	-0.03	0.02	0.09	-0.05	0.04	-0.08	-0.04	0.03	0.00	-0.15	-0.39			
(16) Campaign duration	0.38	0.37	0.33	0.32	0.24	0.33	0.32	0.24	0.21	0.20	-0.05	0.11	0.06	0.12	0.04		
(17) Ongoing campaigns	0.34	0.35	0.26	0.24	0.16	0.28	0.26	0.23	0.15	0.14	-0.02	0.07	0.07	0.02	0.04	0.65	
(18) Competing inv.	0.34	0.35	0.25	0.27	0.12	0.24	0.32	0.20	0.19	0.21	0.01	0.10	0.14	0.11	0.04	0.77	0.79

Table 19  
Regression coefficients for Model I (funds raised)

Variables	Discussions (general)	Discussions (after 1w)	Discussions (1st week)	Themes (general)	Themes (1st week)	Themes (after 1w)
<i>Predictors</i>						
Discussions	0.033*** (0.006)	0.020*** (0.004)	0.034*** (0.008)			
Product & Model				0.012 (0.012)	0.003 (0.022)	0.028* (0.016)
Market				0.014 (0.022)	0.085** (0.033)	-0.029 (0.029)
Finance				0.030** (0.014)	0.011 (0.021)	0.055*** (0.019)
Team				-0.039 (0.046)	0.031 (0.071)	-0.066 (0.063)
Fundraising Strategy				0.020 (0.014)	0.039 (0.025)	0.019 (0.019)
Other				-0.000 (0.024)	0.010 (0.038)	0.005 (0.031)
<i>Campaign-specific controls</i>						
Industry classif. 1	-0.050*** (0.015)	-0.059*** (0.015)	-0.049*** (0.015)	-0.045*** (0.015)	-0.048*** (0.016)	-0.048*** (0.015)
Industry classif. 2	-0.017 (0.015)	-0.020 (0.015)	-0.021 (0.015)	-0.017 (0.015)	-0.021 (0.015)	-0.016 (0.015)
Funding goal	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)
Pre-money valuation	0.000 (0.000)	0.000** (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000** (0.000)
Equity offered	0.270 (1.008)	1.094 (1.003)	0.780 (1.029)	0.774 (1.013)	1.071 (1.032)	1.529 (1.007)
Campaign duration	0.014*** (0.005)	0.011** (0.005)	0.020*** (0.005)	0.012** (0.005)	0.019*** (0.005)	0.011** (0.005)
<i>Platform-specific controls</i>						
Ongoing campaigns	0.011** (0.005)	0.014*** (0.005)	0.010** (0.005)	0.012** (0.005)	0.011** (0.005)	0.016*** (0.005)
Compet. investments	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Constant	10.230*** (0.307)	10.342*** (0.317)	9.925*** (0.317)	10.145*** (0.325)	9.947*** (0.321)	10.123*** (0.336)
Observations	269	271	271	272	272	272
AIC	2.869	2.909	2.920	2.914	2.949	2.924
BIC	-1191	-1192	-1189	-1178	-1168	-1175
Log likelihood	-375.9	-384.2	-385.7	-381.3	-386.1	-382.7
Scaled deviance	259	261	261	257	257	257

Standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 20  
Regression coefficients for Model II (number of investors)

Variables	Discussions (general)	Discussions (after 1w)	Discussions (1st week)	Themes (general)	Themes (1st week)	Themes (after 1w)
<i>Predictors</i>						
Discussions	0.052*** (0.004)	0.031*** (0.003)	0.056*** (0.006)			
Product & Model				0.020** (0.009)	0.026 (0.018)	0.035*** (0.012)
Market				0.007 (0.016)	0.075*** (0.026)	-0.027 (0.023)
Finance				0.033*** (0.010)	0.020 (0.016)	0.050*** (0.015)
Team				-0.046 (0.034)	0.001 (0.056)	-0.062 (0.049)
Fundraising Strategy				0.040*** (0.010)	0.073*** (0.020)	0.048*** (0.015)
Other				0.036** (0.018)	0.067** (0.030)	0.033 (0.024)
<i>Campaign-specific controls</i>						
Industry classif. 1	-0.053*** (0.011)	-0.066*** (0.012)	-0.050*** (0.012)	-0.048*** (0.011)	-0.050*** (0.012)	-0.057*** (0.012)
Industry classif. 2	-0.015 (0.011)	-0.022* (0.012)	-0.022* (0.012)	-0.015 (0.011)	-0.021* (0.012)	-0.018 (0.011)
Funding goal	0.000 (0.000)	0.000 (0.000)	0.000** (0.000)	0.000 (0.000)	0.000** (0.000)	0.000 (0.000)
Pre-money valuation	0.000 (0.000)	0.000*** (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000*** (0.000)
Equity offered	0.581 (0.738)	1.782** (0.789)	1.188 (0.810)	1.049 (0.749)	1.355* (0.815)	2.102*** (0.781)
Campaign duration	0.005 (0.004)	-0.001 (0.004)	0.014*** (0.004)	0.003 (0.004)	0.014*** (0.004)	-0.001 (0.004)
<i>Platform-specific controls</i>						
Ongoing campaigns	0.006* (0.004)	0.011*** (0.004)	0.004 (0.004)	0.008** (0.004)	0.005 (0.004)	0.012*** (0.004)
Compet. investments	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)
Constant	3.931*** (0.225)	4.111*** (0.249)	3.436*** (0.249)	3.793*** (0.241)	3.465*** (0.254)	3.887*** (0.261)
Observations	269	271	271	272	272	272
AIC	2.246	2.427	2.442	2.310	2.477	2.417
BIC	-1311	-1295	-1293	-1297	-1271	-1281
Log likelihood	-292	-318.9	-320.9	-299.2	-321.9	-313.7
Scaled deviance	259	261	261	257	257	257

Standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 21  
Regression coefficients for Model III (funding rate)

Variables	Discussions (general)	Discussions (after 1w)	Discussions (1st week)	Themes (general)	Themes (1st week)	Themes (after 1w)
<i>Predictors</i>						
Discussions	0.014*** (0.002)	0.008*** (0.001)	0.016*** (0.003)			
Product & Model				0.004 (0.004)	0.001 (0.007)	0.010* (0.005)
Market				0.008 (0.007)	0.034*** (0.011)	-0.009 (0.009)
Finance				0.011** (0.004)	0.007 (0.007)	0.018*** (0.006)
Team				-0.009 (0.015)	0.006 (0.023)	-0.007 (0.020)
Fundraising Strategy				0.011*** (0.004)	0.023*** (0.008)	0.009 (0.006)
Other				-0.003 (0.008)	0.001 (0.012)	0.001 (0.010)
<i>Campaign-specific controls</i>						
Industry classif. 1	-0.016*** (0.005)	-0.020*** (0.005)	-0.015*** (0.005)	-0.014*** (0.005)	-0.014*** (0.005)	-0.016*** (0.005)
Industry classif. 2	-0.008* (0.005)	-0.010** (0.005)	-0.009** (0.005)	-0.008* (0.005)	-0.009* (0.005)	-0.008* (0.005)
Funding goal	-0.000*** (0.000)	-0.000*** (0.000)	-0.000* (0.000)	-0.000*** (0.000)	-0.000** (0.000)	-0.000*** (0.000)
Pre-money valuation	0.000 (0.000)	0.000*** (0.000)	0.000 (0.000)	0.000* (0.000)	0.000* (0.000)	0.000*** (0.000)
Equity offered	0.285 (0.318)	0.643** (0.325)	0.429 (0.327)	0.453 (0.321)	0.541* (0.327)	0.768** (0.327)
Campaign duration	0.003** (0.002)	0.002 (0.002)	0.006*** (0.002)	0.003 (0.002)	0.006*** (0.002)	0.002 (0.002)
<i>Platform-specific controls</i>						
Ongoing campaigns	0.002 (0.002)	0.003** (0.002)	0.001 (0.002)	0.002 (0.002)	0.002 (0.002)	0.004** (0.002)
Compet. investments	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Constant	0.647*** (0.097)	0.687*** (0.103)	0.506*** (0.101)	0.625*** (0.103)	0.506*** (0.102)	0.625*** (0.109)
Observations	269	271	271	272	272	272
AIC	0.563	0.656	0.629	0.616	0.651	0.674
BIC	-1423	-1434	-1434	-1414	-1413	-1413
Log likelihood	-65.66	-78.89	-75.29	-68.78	-73.50	-76.60
Scaled deviance	259	261	261	257	257	257

Standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Figure 1 Visual map of the equity crowdfunding field

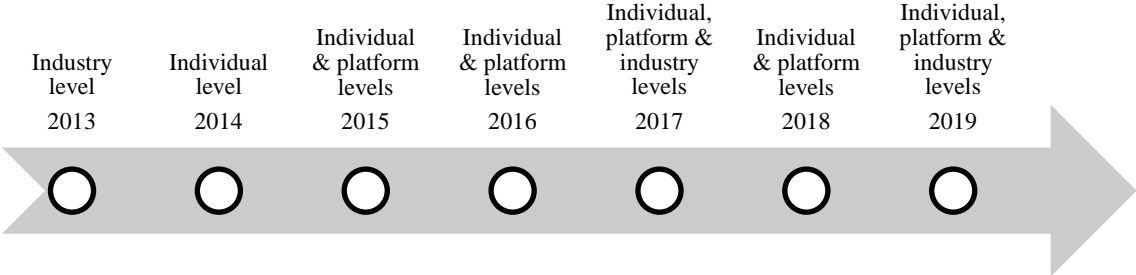




Figure 2 Overview of main themes in the discourse

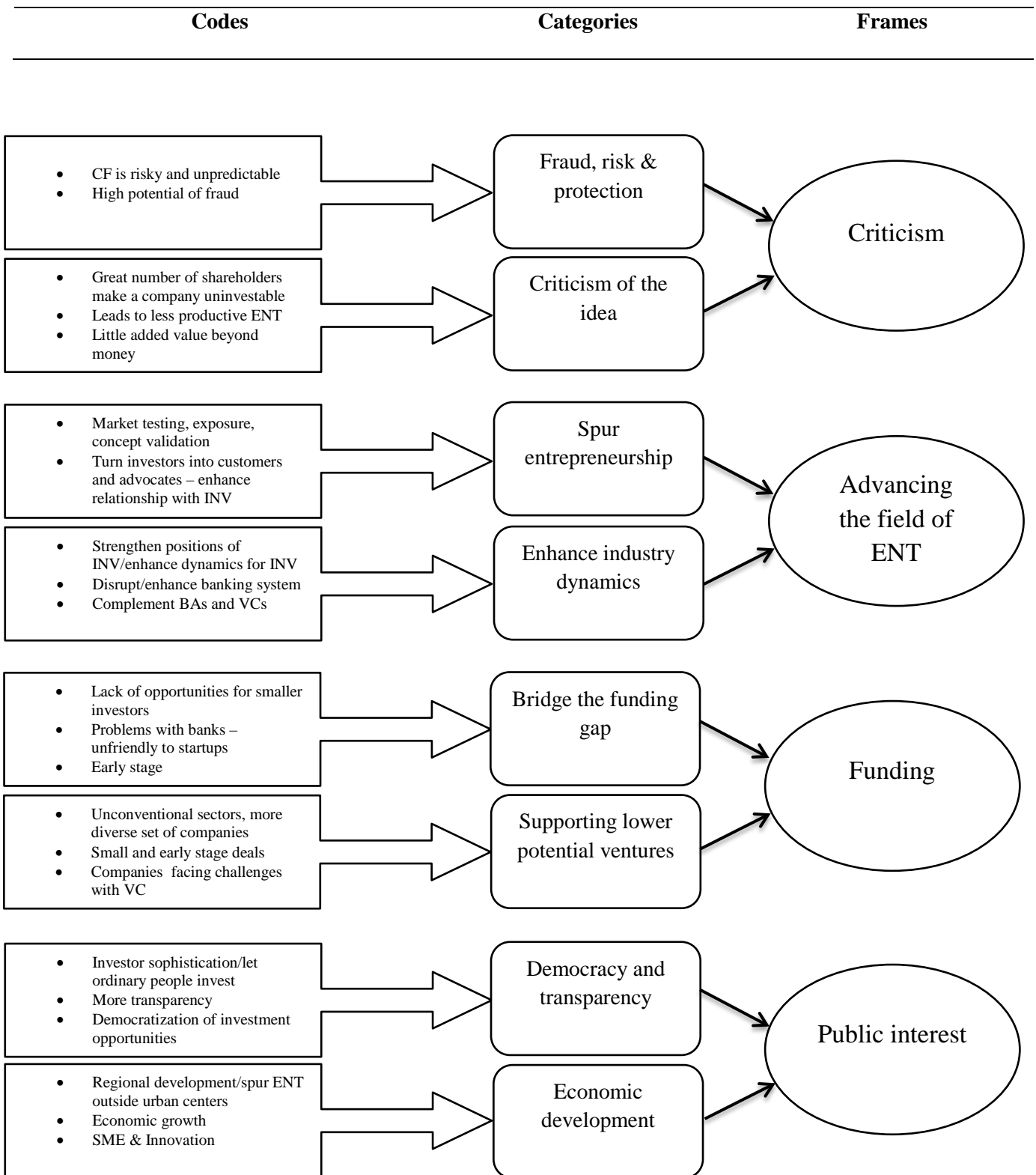


Figure 3 Daily discussion frequencies

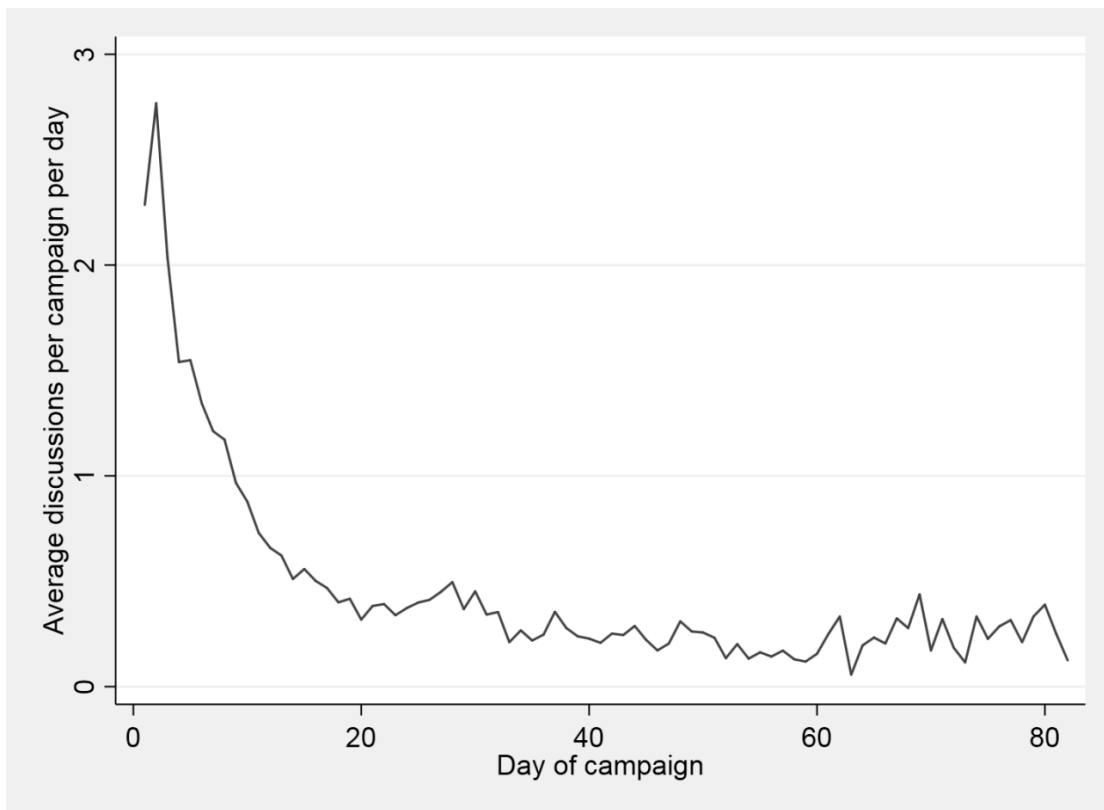


Figure 4 The distribution of discussion topics over the course of campaigns

