

Association for Information Systems AIS Electronic Library (AISeL)

Research Papers

ECIS 2018 Proceedings

11-28-2018

Reading between the lines: Legal risk mitigation by equity crowdfunding platforms

Manan Podar

IE University, mkpodar.phd2016@student.ie.edu

Alvaro E. Arenas

IE University, alvaro.arenas@ie.edu

Jie Mein Goh

Simon Fraser University, jmgoh@sfu.ca

Ambuj Anand

IIM Ranchi, ambuj@iimranchi.ac.in

Follow this and additional works at: https://aisel.aisnet.org/ecis2018_rp

Recommended Citation

Podar, Manan; Arenas, Alvaro E.; Goh, Jie Mein; and Anand, Ambuj, "Reading between the lines: Legal risk mitigation by equity crowdfunding platforms" (2018). *Research Papers*. 119.
https://aisel.aisnet.org/ecis2018_rp/119

This material is brought to you by the ECIS 2018 Proceedings at AIS Electronic Library (AISeL). It has been accepted for inclusion in Research Papers by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

READING BETWEEN THE LINES: LEGAL RISK MITIGATION BY EQUITY CROWDFUNDING PLATFORMS

Research paper

Podar, Manan, IE Business School, IE University, Madrid, Spain,
mkpodar.phd2016@student.ie.edu

Arenas, Alvaro E., IE Business School, IE University, Madrid, Spain,
alvaro.arenas@ie.edu

Goh, Jie Mein, Beedie School of Business, Simon Fraser University, Vancouver,
Canada, jmgoh@sfu.ca

Anand, Ambuj, Indian Institute of Management, Ranchi, India, ambuj@iimranchi.ac.in

Abstract

The use of equity crowdfunding as a source of financing has rapidly gained traction. The key motivation of funders on such equity crowdfunding platforms (ECPs) is high financial returns, which is also associated with greater risk for all stakeholders: creators, funders and ECPs. We explore legal risk mitigation by ECPs in this paper and develop a taxonomy of legally mitigated risks. Content analysis of Terms of Service and Privacy Policy contracts of 17 most popular ECPs each, results in 544 references of legally mitigated risks and a taxonomy of 12 first level items and 18 second level items. We find that platforms fear and mitigate for risks associated with Information Security and Third Party most. The importance attached to Third Party risks is especially interesting. This theory and experience based systematic and comprehensive taxonomy of legally mitigated risks would not only help users understand a rapidly evolving phenomenon but also will help regulators monitor compliance issues.

Keywords: Legal risk mitigation, Equity crowdfunding, Taxonomy Development, Content Analysis.

1 Introduction

“ 3 guys swore they could make gills for humans and raised \$800,000, and it should be a cautionary tale for everyone ”¹

As a story that has become relatively routine, one regularly reads or hears about a crowdfunding project creating a deluge of excitement, raising buckets full of funds and then collapsing without anything to show for it. With every such failure of platforms to screen projects displayed, current and potential users may get more paranoid about crowdfunding. Especially, in the case of equity crowdfunding platforms (ECPs), it is important for platforms to know and perform their role and mitigate risks on their platform else they face serious consequences. Just last year uFundingPortal was expelled from conducting crowdfunding activities by Financial Industry Regulatory Authority (FINRA) in the United States for “lack of transparency and outlandish valuations and investor terms.”² Therefore, ECPs are likely to manage risks such that they are least likely to be liable.

Recently, various companies, products and projects have begun to use online crowdfunding platforms to finance themselves. Online crowdfunding directly connects fund-seeking agents (creators) for their projects, products or companies with fund-giving agents (funders) with excess funds and a motivation to utilise said funds. Based on the concept of crowdsourcing, where an undetermined crowd is asked to perform a certain activity in an open call (Estellés-Arolas and González-Ladrón-de-Guevara, 2012), simplistically crowdfunding involves said activity to be contribution of funds. Equity crowdfunding is the process whereby funders invest in an early-stage project in exchange for shares in that project. This opportunity however has not been without its share of risks. Various reports about risks in crowdfunding highlights the importance regulators, platforms and users of crowdfunding platforms place on this topic.³ Likewise, academics have called for research on the risk element of crowdfunding (Lehner, 2013; Mollick, 2014). This paper explores the risk angle of crowdfunding by attempting to discover legal risk mitigation strategies opted for by ECPs.

From the combination of characteristics of an Internet-based multisided platform and microfinance, many mechanisms of crowdfunding have gradually and progressively emerged. It first started with collection of non-incentivised contributions and funding for creative projects e.g. new musicians mobilising their fans to fund their studio albums. Moving to incentivised contributions for all kinds of projects (rewards/pre-purchase of product or service at a discount), crowdfunding next evolved to also include direct loans between individuals in which fund-giving agents earned interest on borrowed money (peer-to-peer lending) (Burtch et al., 2013). With the substantial growth of this model of crowdfunding, equity crowdfunding is the latest model gaining acceptance. The current understanding of crowdfunding is relatively nascent. Academic research has primarily focussed on motivations of funders (Agrawal et al., 2015; Burtch, 2011; Burtch et al., 2014) and creators (Gerber et al., 2012) or the factors of successful crowdfunding (Mitra and Gilbert, 2014; Mollick, 2014). In comparison, there is little to no work done on risks in crowdfunding. Consequently, scientifically derived implications about risks are not readily available for academics, practitioners and regulators to use.

Crowdfunding as a concept is a wide concept and various academics have proposed classifications of types of crowdfunding (Belleflamme et al., 2013; Bradford, 2012; Hemer, 2011; Ordanini et al., 2011). The four most commonly accepted archetypes of crowdfunding are donation crowdfunding, rewards crowdfunding, lending crowdfunding and equity crowdfunding. Equity crowdfunding differs from other archetypes is that the funders primary motivation to invest is

¹<https://www.businessinsider.in/3-guys-swore-they-could-make-gills-for-humans-and-raised-800000-and-it-should-be-a-cautionary-tale-for-everyone/articleshow/52623398.cms>

²<https://www.crowdfundinsider.com/2016/12/93663-finra-action-ufundingportal-potential-fraud-found-crowdfunding-platform/>

³A query of ‘crowdfunding is risky’ returns over 10,000 articles on Google News

financial gain (Lukkarinen et al., 2016). An equity stake in the creator's company, proportional to the funding amount, is offered to the funders in lieu of their investment (Agrawal et al., 2014; Mollick, 2014). Funders on ECPs become profit/loss partners of the company and their return realized through capital gains when they can liquidate their equity in future or through dividends. Equity investment has the potential to provide most returns and requires most risk taking as well (Artiach and Clarkson, 2011). As an umbrella term, crowdfunding is very generic and clear differentiation of the type of crowdfunding being studied is essential (Haas et al., 2014). Since the motivations of investment are strongly financial and the risk is the highest, we concentrate our efforts to ECPs only.

Risk is an integral part of participation on ECPs. The IS risk literature uses several different conceptualizations of risk, focusing mainly on negative outcomes from a situation (Alter and Sherer, 2004). We have followed Rommel and Gutierrez's (Rommel and Gutierrez, 2012) view of risk as "*an unfavourable event that mostly, leads to a loss (for stakeholders)*", due to their focus on *loss*, a preoccupation for many stakeholders in crowdfunding (Schwienbacher and Larralde, 2010). Risk management has four major steps: risk identification, risk analysis, risk mitigation and treatment, and risk monitoring (Peltier, 2004). Risk identification and analysis for crowdfunding platforms have been explored by a few studies (Agrawal et al., 2014; Mollick, 2014; Mollick and Kuppuswamy, 2014; Podar et al., 2015). However, risk mitigation, which is integral to the risk management process, has not been discussed. Identifying and analysing risk is moot without proper risk mitigation. Therefore, the main research question for this paper is '*What are the different risks that equity crowdfunding platforms legally mitigate themselves from?*' This paper discusses the various risks in which legal risk mitigation strategies are used by ECPs to absolve themselves from liability. It also tries to categorise said risks to develop a taxonomy of legally mitigated risks by ECPs. We do this by analysing contracts on 17 most important ECPs using content analysis methodology based on past academic literature and on expertise in risks. The taxonomy development is also important as it provides an "effective data storage and retrieval system, as well as a means of theory development, describing a phenomenon in its defining traits" (Rich, 1992, p. 1).

This study provides important contributions. First, as enabler of crowdfunding, an in-depth Information Systems (IS) based risk analysis should help develop better understanding essential for the utilization of equity crowdfunding. Thus far, there is no work in this area and this paper attempts to fill the research gap. More importantly, given the wide variety of risks that are presented across various crowdfunding sites, it is at this current point, challenging to do a risk-based analysis. In order to achieve this, there is a need for a unified vocabulary to describe the various types of risks that are commonly associated with crowdfunding sites. As such, the second contribution of this paper is that we propose a theory based systematic and comprehensive taxonomy of legally mitigated risks for users to understand the phenomenon they are exposing themselves to (as the contracts are tedious to read and understand for most internet users) and for regulators to control compliance issues with the regulations. This taxonomy is likely to benefit the area through a better common understanding of the set of risks for future expansion of research in this area.

The paper is structured as follows. In section 2 we provide a literature review of crowdfunding and the different types of crowdfunding platforms, the reasons why we chose equity crowdfunding and discuss the importance of risk analysis. After that we state the methodology chosen for the research and describe the steps to analyse our data. Finally, we present and elaborate on the taxonomy of legal risk mitigation and discuss various implications of our findings. We conclude the paper with a short summary and appendices.

2 Literature Review

In simple terms, crowdfunding is the financing of a project by a large group of individuals or companies, who share the risk of investment. Crowdfunding normally happens without a broker,

with platforms largely acting as facilitators that help in the search function. Entrepreneurs ‘source from the crowd’ by directly raising money from individuals or companies. Formally defined, “... crowdfunding, is a collective effort by people who network and pool their money together, usually via the Internet, in order to invest in and support efforts initiated by other people or organizations” (Ordanini et al., 2011). Crowdfunding was first discussed by academics mainly to check the legal issues with this new phenomenon. After Kappel (Kappel, 2008) analysed the legal restrictions of crowdfunding under the Securities Law of 1933 (Bradford 2012), the legal restrictions of crowdfunding dominated the US legal architecture for microfinance. The amount of peer-reviewed published literature on crowdfunding has been steadily growing however, there are many areas yet to be explored, one of which is legal risk mitigation.

Academics initiated the discussion on crowdfunding as a venture financing tool in 2010 (Schwienbacher and Larralde, 2010) and subsequently there have been several attempts to look at crowdfunding using case studies from a particular national context using a descriptive, explanatory or concept-based approach (Giudici et al., 2012; Mitra, 2012). The first empirical studies about crowdfunding are qualitative using initial market data and interviews (Aitamurto, 2011; Gerber et al., 2012). As crowdfunding platforms become more established with increasing transaction volumes, surveys were conducted and quantitative data based studies came forth (Burtch et al., 2013; Kuppuswamy and Bayus, 2015; Mollick, 2014; Mollick and Kuppuswamy, 2014).

Crowdfunding as a concept originated from microfinance and crowdsourcing. In particular, equity crowdfunding falls in the high risk-high return type of investments. In his seminal book on risk taking tactics for leaders, Calvert (Calvert, 1993) argued that for high gains or performance, risk-taking behaviour is necessary, and consequently risk management activity is required. Thus, we may infer that crowdfunding requires considerable attention to risk management activity and these risks may come from risks of microfinance, crowdsourcing and online multisided platforms, in general. Risk management is “the sum of the culture, processes and structures that are directed towards effective management of potential opportunities and adverse effects” (Mahler and Vraalsen, 2007, p. 3). There are four major sequential steps for risk management in Information Systems (IS) – 1. Risk identification, 2. Risk analysis, 3. Risk mitigation and 4. Risk Monitoring (Peltier, 2004). The aim of risk identification is to identify the various threats to the IS ecosystem at the application level (e.g. sabotage by competition, hacking, viruses, etc.), organisational level (sustainability risk, data security risk, legal risk) and interorganisational level (natural disasters, intrusion by computer hackers, weak and ineffective controls). Risk analysis is the ability to understand the nature of loss that could occur if the risks are realised. Risk mitigation is the third phase of risk management. After identifying the risks and determining which are the most important to be tackled, it is important to develop and implement strategies to avoid or eliminate risk from the system or minimize the negative impact of risk as much as possible. This happens in the risk mitigation stage (Bandyopadhyay et al., 1999). Risk monitoring is the safety net that ensures the first three steps are not wasteful. Risk monitoring is like keeping the ‘big brother’s watch’ over the IS ecosystem to ensure the risk mitigation strategies continue to be effective in face of constantly evolving risks. It is the perpetual audit of the identified risks, their probability of occurrence, impact on the IS ecosystem and effectiveness of the risk mitigation strategies. In IS literature, business familiarity, legal insurance, access control, monitoring and filtering, education, governance and policy, real options, outsourcing (Benaroch et al., 2006; Gefen et al., 2008; Mahler and Vraalsen, 2007; Ross and Beath, 2006; Turban et al., 2011) strategies of risk mitigation. We are focussed specifically on the legal risk mitigation strategy where platforms can use contracts as a form of legal insurance against various risks (Mahler and Vraalsen, 2007; Turban et al., 2011).

Risk and risk management are topics that have not been prominent in crowdfunding, and especially equity crowdfunding, literature. One study examines risk-taking behaviour of entrepreneurs on rewards crowdfunding platforms and finds that an entrepreneur sets higher funding goals to avoid project discontinuation due to the funding goal not being reached

(Schwienbacher, 2015). Another study identifies three legal risks in crowdfunding (Smith, 2013). Another work examined the regulations of the downside risks and proposals for regulations of upside risks using legal analysis and VC comparison from the JOBS Act (Wroldsen, 2013). Measures required to successfully implement crowdfunding in the EU are discussed to an extent by De Buysere et al. (2012), Klohn and Hornuf (2012) and Rothler and Wenzlaff (2011). This paper is an attempt to understand risk management for crowdfunding in more detail by identifying specific legal risk mitigation strategies. One of the most recent studies has explored the ease of conducting Ponzi schemes on ECPs in USA by circumventing the regulations (Baucus and Mitteness, 2016). This is one aspect of what we are trying to achieve. Our study is more global (wider sample) and tries to go beyond fraud to identify many risks and legal risk mitigation strategies.

Crowdfunding differs from traditional financing in various ways. A key difference is the profile of funders. Traditional funders such as financial institutions, venture capitalists, and angel investors are professionals with vast investing experience. In contrast, the majority of funders of crowdfunding are often retail investors funding for the first time. Unlike traditional funders, funders of crowdfunding may have neither the resources nor the expertise to evaluate investment opportunities for risks and returns. This may lead the participants to take unknown and unnecessary risks (Griffin, 2012; Hazen, 2012; Hildebrand et al., 2016; Mollick, 2014). The geographical separation between creator and funders further prevents the funders from conducting a stringent review process. Also, due to the small amount of funding per funder, funders may lack motivation to perform due diligence (Agrawal et al. 2013). This creates noise in the market, with equal competition between good and not so good projects. Concerns resulting from this noise include unexpected problems in finishing projects, fraud, lack of professional due diligence, entrepreneurial over-enthusiasm and playing with the crowd's money. For instance, 37% of the funded projects on Kickstarter went over budget leading to delays, cancellations and low quality products (Mollick & Kuppuswamy, 2014).

Naivety is not a problem of only funders. Entrepreneurs using the traditional route for financing can enlist the help of various advisors to appropriately sell their project to funders. This facility is generally not available for entrepreneurs using crowdfunding. As noted in literature, "crowdfunded offerings present a new environment in which innocent but inexperienced entrepreneurs face increased risk of making a misstatement or misleading omission" (Mashburn, 2013). Crowdfunding platforms do not help as they act as facilitators and few platforms have conflict resolution services, if a participant is disappointed (Gerber and Hui, 2013). In the United States, JOBS Act (2012) was an attempt to strengthen the sale of securities on crowdfunding platforms. The clauses in this act are essentially in contrast to the Securities Act (1933) and expose the investors to risk of fraud and incompetence (Hazen, 2012). Since then, addendums to the act have, to an extent, relaxed the restrictions to make crowdfunding more inclusive. The constant changes in the legal environment surrounding crowdfunding create more noise. With a wide variety of geographically dispersed projects competing for funds, funders of the noisy crowdfunding markets can benefit from help to identify and mitigate the risks (Ahlers et al., 2015). These fundamental differences between traditional funding and crowdfunding may result in differences between the risks to users of traditional funding and crowdfunding. Given these challenges faced by the creators and funders, it is important for them to be informed of and understand the contracts they are agreeing to and what challenges they bring. This paper tries to bridge this gap by analysing contracts to identify the legal risk mitigation strategies adopted by the ECPs. With this knowledge, users may make more informed decisions while choosing to participate on ECPs.

3 Methodology

We chose content analysis to identify paragraphs with reference(s) for legal mitigation of risks found in direct or indirect implication in contracts of ECPs and coded them if there is an adjoining clause that mitigates the risk for the ECPs. Content analysis is "an objective and quantitative

method for assigning types of verbal and other data to categories” (Kerlinger and Lee, 2000, p. 607). It is suitable for this study because it provides steps for conversion of written data of the contractual documents between ECPs and users into different codes of legal risk mitigation. These codes can further be used to compare legal risk management between various ECPs. We have used a coding, refining and taxonomy development procedure similar to the one adopted by Ackerman et al. (Ackermann et al., 2011). To the best of our knowledge, this is one of the first studies on risks from the perspective of ECPs and therefore we conduct exploratory research to identify legal risk mitigation strategies adopted by platforms. While our major audience is IS researchers who would like to empirically specialise in equity crowdfunding, the results and taxonomy of this paper would also be valuable for researchers from other fields, especially Entrepreneurship and Finance, as crowdfunding is an umbrella concept encompassing many fields.

3.1 Sample selection

The sample selection process started by identifying the most comprehensive ranking of ECPs in 2016. We selected the ranking provided by Crowdfunding PR Campaigns, which included the list of the top 100 crowdfunding platforms by website traffic⁴. The list included 42 ECPs, selecting the ‘Terms of Service’ (ToS) and ‘Privacy Policy’ (PP) contracts to perform the content analysis. These contracts, required to be accepted by users while participating in crowdfunding activities on a platform, state the boundaries of roles played by each participant of the contract and are as such, supposed to be used to resolve any conflict between parties. Users are given a binary choice with regards to accepting the contracts to continue using the ECP. The contracts, drafted by ECPs, state their rights and liabilities thus are a means to mitigate themselves from as many risk and liability as legally possible. This ensures construct validity for our research – ToS and PP represent the legal risk mitigation strategies for ECPs. To maintain consistency, we had to remove some platforms from the shortlist that did not allow us to analyse both ToS and the PP. Due to language constraints, we also removed such platforms that did not make the contracts available in English. After these procedures, we had a sample of 17 platforms⁵ totalling 34 documents containing 346 pages, which is sufficient for exploratory research (Appendix 1).

3.2 Taxonomy development

A taxonomy can be defined as a scheme to partition a body of knowledge into related objects (Howard and Longstaff, 1998). We follow prior protocols in taxonomy development that consists of two distinct steps. First, deriving distinct characteristics for the taxonomy framework and second, grouping similar entities together (Fiedler et al., 1996; Larsen, 2003; Malhotra et al., 2005; Sabherwal and King, 1995). In the first step, we tried to identify the references of legal risk mitigation and coded such references to dissimilar categories of risks. In the second step, we identified the nature and type of those risks that were mitigated and classified them into a taxonomy. The next steps were followed to achieve these two broad objectives.

First, we define a risk mitigation reference in the context of crowdfunding platforms. Such references were identified by focusing on legal risk mitigation words and phrases like ‘your responsibility,’ ‘your sole responsibility,’ ‘you waive rights to,’ ‘no(t our) responsibility,’ ‘limited liability’ and others of similar meaning and implication. These terms were selected from the legal risk mitigation domain based on past experience of contracts, privacy and security. For e.g.

“As a condition of use of our Service and the submission of User Submissions to the Service, you promise not to use the Service for any purpose that is prohibited by the Terms or applicable

⁴ Top 100 Crowdfunding Sites | Crowdfunding PR, Social Media & Marketing Campaigns - <https://crowdfundingpr.wordpress.com/2016/05/01/top-100-crowdfunding-sites-in-the-united-states-europe-asia-south-america-africa-and-other-global-markets-in-2016/>

⁵ The shortlisting was done in November 2016 and the conditions applied are valid and updated until that period

law. You are responsible for all of your activity in connection with the Service. Additionally, as a condition of your use of the Service: ...”

This paragraph was coded as a reference of legal risk mitigation by the platform since the users are made responsible for all their activities in connection with their activity on the platform. These paragraphs talk about the risks of using ECPs and how the ECP mitigates itself from as much liability as possible by transferring the risk to other parties. A list of codes for all such possible references was generated. A paragraph could have multiple references to the same code or reference(s) to multiple codes. In order to generate these codes, three authors individually coded three randomly selected platforms from the existing set of 17 platforms. The list of codes thus developed acted as a code library. This code library was later expanded in an iterative fashion by including the “terms of use” and “privacy policy” of all 17 platforms. Using theory, the codes of the code library were then analysed and merged to form a concrete taxonomy. Thus, the final set of taxonomy was derived from the expanded code library, which is based on content analysis of 17 terms of use and privacy policy contractual documents of crowd funding platforms that resulted in 544 references (Appendix 1). We have taken sufficient care to ensure that the individual components of the taxonomy are mutually exclusive and collectively exhaustive.

3.3 Coding and refining

After the first coding iteration of the six documents (3 Terms of Use and 3 Privacy Policies), we found a list of 38 risks that are legally mitigated (Appendix 2). This was the result of codes generated after three coders independently coded the documents. Although, the three coders coded 37 of the 38 codes there were various conflicts about the definition and understanding of various codes. These were resolved by pairwise discussions. One coder took a lead in this process and conducted discussions with each other coder individually to resolve the differences in understanding and definitions. The lead coder then reconciled the differences post all discussions and the final code list, their definitions and understanding were agreed to by all three coders.

In the second iteration, using and building on the list of codes generated in iteration 1, the lead coder coded references of the 28 remaining documents (14 Terms of Use and 14 Privacy Policies). In addition to the existing 38 codes, three more codes were found (Appendix 3). After a discussion with the other two coders, they were added to the list. With the number of documents analysed for coding, we believe that the list of legally mitigated risks we have generated is exhaustive.

The total number of 41 codes was too high for a concise taxonomy. The high number of codes of legally mitigated risks forced us to think about code reduction to a more manageable number. We first tried to group codes of similar meaning into 1. E.g. ‘Impersonation,’ ‘Misrepresentation,’ ‘Accuracy of user generated content,’ and ‘Fraud’ largely mean the same – a malicious user using the Internet’s capabilities to create bogus online content that can lead another user to believe that this information is from/about a trusted source (Vilardo, 2004). We reduced the redundancy by removing such duplicates.

In this step, we tried to group similar items into single categories to create the taxonomy. Codes were moved around in different categories to check the best fit. E.g. Codes related to Intellectual Property (IP) were grouped together to one category IP. We also tried to merge codes that were sporadically referenced. E.g. Black Swan was referenced sporadically and was merged with Information Availability. It fits because Black Swan refers to a specific reference of Information Availability. Thus, we further decreased redundancy in the taxonomy. The process of grouping and regrouping was done a few times by the coders: two are IS researchers holding a doctoral degree and with corporate experience, and one PhD Candidate researching risk management in the context of platforms.

We used the six parameters of a good taxonomy to evaluate the quality of the taxonomy generated (Howard and Longstaff, 1998). The taxonomy was *exhaustive* as at each step we made sure all

codes were assigned to a category and no codes were left that did not fit into any category. Our sample of 17 platforms covers five legal jurisdictions: Brazil, Germany, Israel, UK and USA. This has also helped us in achieving our goal to make the taxonomy as exhaustive as possible. The categories should be *mutually exclusive* and *unambiguous*. We tried to make sure that the taxonomy is clear and precise to anyone who is classifying. However, few codes were fitting into two categories. E.g. user behaviour can be classified into Information Security (since availability issues can arise due to user behaviour) or User Violations. The taxonomy should also be *repeatable* irrespective of who is classifying. The inclusion of multiple coders ensured reliability in the process. A good taxonomy's categories should also be *accepted*. We used categories already existing in IS and entrepreneurship literature and as such, most categories are already approved by the research community. As the last parameter, a taxonomy should be *useful* and generate insights into the inquiry field. To the best of our knowledge this paper is the first to systematically collect and categorise legally mitigated risks for ECPs. The taxonomy will be useful for users to understand what risks they are taking on (as the ECP mitigates itself from them), for regulators to define and modify regulations to prevent user exploitation and for ECPs to check the different types of risks they might not be mitigating in comparison with competition.

4 Taxonomy of Legally Mitigated Risks by ECPs

This taxonomy (Appendix 4) was created to group and classify all codes found during our content analysis of common online user contracts on ECPs. Overall, the category names used by us are derived from the names used in Ackermann et al. (Ackermann et al., 2011) and Sherer and Alter (Sherer and Alter, 2004) with some additions.

We defined one category specifically for partners of ECPs called 'Third Party.' This category combines legally mitigated risks due to users' participation on websites, portals and partners linked to and accessed via ECP and to such third parties from users. The high number of references (83) about Third Party in the documents was unexpected before we started the analysis. This shows that ECPs are particularly concerned about exposing themselves of risk due to involvement of their partners on their platform. References of legal risk mitigation for Privacy (44) and Information Security (145) were high. The type of information shared on such ECPs is largely demographic, preferential and financial. Such information is highly prone to threats and attacks (Gao et al., 2011; Rich and Gonzalez, 2006), and as such a platform needs to mitigate itself from exposure to risks to information. Confidentiality, Integrity and Availability are established principles of information security (Harris, 2010). We have included General IS Security to Information Security as it refers directly to challenges in determining culpable parties and managing access control to the systems (Lampson, 2009). In the Privacy classification, User Privacy was an unexpected finding. Since only 1 ECP identifies and mitigates itself from this risk, it may be an outlier. However, we chose to include it in our taxonomy to maintain exhaustiveness and because it may indicate that a threat exists to personal privacy of users if they participate in ECPs. The surprise here is because the users interacting with each other on the ECP through direct or indirect communication may be geographically apart. We believe knowledge of this may have significant implications on user participation.

A major concern of IS is underperformance due to technical issues such as network problems, page loading speed, etc. (Ackermann et al., 2011). We have combined Technology and Performance codes and classify under Technical Performance (26). Performance, which refers to the technical performance of the ECP, depends on the Technology adopted and as such, Technology-Performance have an antecedent-consequence relationship. It made sense to combine these two codes into one classification for the taxonomy. The boundary between Technical Performance and Information Security can be very thin. To maintain unambiguity, we made a clear differentiation. References where inadequate technology may be cited for security reasons were coded under Information Security while references where the technology used (adequate or inadequate) underperforms as per its ability were coded under Technical Performance. Similar

distinction was made between the Financial and Transaction classifications. Financial has references (11) that mitigate financial implications for the ECP while Transaction has references (49) that mitigates financial implications of making an investment for the users.

Another interesting finding is about Due Diligence. Although ECPs are expected to perform certain checks on companies they publish, they aim to mitigate themselves from the risk of such companies being unworthy of investment. This may be because most ECPs differ on the level of due diligence they perform. While the law stipulates that ECPs perform due diligence checks, there is no suggestion of mandatory or standard checks prescribed (Baucus and Mitteness, 2016). This may be a reason most platforms (15) specifically identify references for mitigation of this risk. This finding is particularly interesting for regulators to update the laws and standardize the due diligence process. Regulators have taken measures to prevent fraud on ECPs by mandatory disclosures of financial documents and independent audit reports. The all-or-nothing model of equity crowdfunding also attempts to mitigate fraud under the ‘wisdom of the crowd’ theory (Hienerth and Riar, 2013). However, first time retail investors tend to follow a herd mentality and this theory may not be fully applicable (Burtch, 2011; Kim and Viswanathan, 2014). This is reflected in 16 references under Fraud. The ECPs may believe that chances of fraud remain persistent and therefore want to mitigate themselves from it.

Unexpectedly, we did not identify many references (1) for Reputation. In a high growth competitive investment-based environment, reputation of companies can make or break them (Aula, 2010). The low number of ECPs that mitigate themselves from reputation risk is therefore surprising. Reputation risk may be a result of malfunctioning internal operations, systems, people or external events that may cause direct or indirect losses (Aula, 2010). Therefore, reputation risk is also a consequence of other risks. By identifying and mitigating themselves of other risks, ECPs may believe they have insured themselves of Reputation as much as practically possible. Another possible reason could be a lack of knowledge about how to manage reputation risk and about who is responsible for managing it (Aula, 2010).

In addition to the taxonomy, we observe that ECPs differ in their perception of importance of certain risks such that they choose to not use legal risk mitigation for them. One reason for this could be that different ECPs operating in regions under different regulations and jurisdictions. However, there may be differences between platforms within a certain jurisdiction where the legally required norms from platforms are the same. This observed difference may in part explain another interesting finding that choice of risks legally mitigated may be not only due to the legal jurisdiction that ECPs operate but also due to the characteristics of the targeted users of such platforms.

5 Conclusion

The intention of this study was to identify legally mitigated risks by ECPs and to classify them in a taxonomy. Since the literature on ECPs is nascent, we conducted an extensive content analysis of contracts on ECPs to identify such legal risk mitigation strategies. We documented 41 risk codes which were then synthesized into a taxonomy comprising 12 major classifications, which are grounded in previous literature on risks in IS, online multi-sided platforms and microfinance. Our initial findings suggest that ECPs tend to protect themselves from a wide range of risks through provisional clauses which mention these 12 classes of risks. Of these classes, the most dominant risk categories we find are “Information Security” and “Third Party”. Other risk categories such as “Legal”, “Compliance”, “Transaction”, “Privacy” and “Intellectual Property” were also quoted quite often. The emphasis on risks related to “Third Party” was unexpected. This is because although “Third Parties” are typically the partners of ECPs and we would expect that ECPs have a rigorous procedure to select them, the ECPs seem to believe they may be very vulnerable to risks related to “Third Party” actions.

Our proposed taxonomy will be useful in laying the basis for future research on ECP risks and in developing theory in this field. This taxonomy is also useful in practice for all major stakeholders of equity crowdfunding: ECP, users, regulators. Users of ECPs can use the taxonomy to identify ‘what they are getting themselves into.’ Users can see the risks at platforms mitigated themselves from and thus mostly transferred to the users themselves. This taxonomy provides the information in brief to help users to better understand the various types of risks presented to them. The comparative analysis also helps users analyse the ECP best suited to their risk profile. On the other hand, ECPs can also utilize our proposed taxonomy by turning it into an evaluation framework to assess how comprehensive their legal risk mitigation strategy is and how they may improve their legal risk mitigation strategy relative to their competitors. Regulators also benefit from the taxonomy and comparative analysis as it shows them the pitfalls that they may need to protect users from.

One of the limitations of our study would be the omission of certain popular ECPs because of unavailability of contracts in English. Wiseed is a popular ECP and it would have been interesting to include it in our analysis if not for the contracts in French only. Although our sample size is fairly adequate and very diverse at 17 cases, we believe that having a more diverse set of cases would enrich the results of the study even more. Another minor limitation of the taxonomy is the difficulty in differentiating between classifications, at times. While this occurs on few occasions, future research is recommended to distinguish between these constructs in the context of equity crowdfunding.

An empirical study to validate the constructs of our taxonomy would be interesting using a quantitative approach, such as the Q-sort method (Nahm et al., 2002). We have discussed the possible implications an analysis of reasons for ECPs mitigating certain risks over others across the sample. The platforms are from different jurisdictions and the jurisdiction may have a significant impact on the legal risk mitigation strategy of an ECF. It will be interesting to perform more detailed inter-jurisdiction analysis between ECFs. This may help identify causes of legal risk mitigation strategies of ECPs will allow us to decouple them from jurisdiction-based decisions to strategy-based decisions.

6 Appendices

6.1 Platforms in sample

Platform Name	Pages		Codes		References		Jurisdiction
	TOS	PP	TOS	PP	TOS	PP	
AngelList	23	7	20	8	66	11	USA
Circle Up	7	9	15	10	26	18	USA
Companisto	14	6	7	3	13	11	Germany
Crowd Cube	5	8	9	5	14	5	UK
Crowdfunder	40	23	20	4	39	8	USA
Equity Net	5	2	1	1	1	1	USA
Flash Funders	24	8	17	3	42	3	USA
Funders Club	10	8	13	3	19	4	USA
iCrowd	15	20	16	6	38	11	USA
Offerboard	2	3	10	4	11	4	USA
One Thousand Angels	9	3	14	1	20	1	USA
Our Crowd	4	4	12	4	18	5	Israel
Propelir	5	4	10	1	14	1	Brazil
Seed Invest	8	5	13	9	36	11	USA

Start Engine	9	6	15	8	25	9	USA
TruCrowd	9	6	11	2	13	2	USA
Wefunder	28	7	20	4	40	4	USA
Total	217	129	NA	NA	435	109	NA

6.2 Appendix 2 – Codes for risks legally mitigated by the platforms-iteration 1 (# of references)

1. Accuracy of user generated content (6)
Mitigating the risk that the data generated/shared by users on the platform may not be accurate
2. Compliance (4)
Mitigating the risk that users do not meet general compliance regulations
3. Platform role (2)
Mitigating the risk that platform may act as (or be perceived a) broker when the regulations do not allow it to be
4. Transaction (2)
Mitigating the risk that a stated transaction may not complete as expected
5. User accreditation (14)
Mitigating the risk that a user is not accredited to invest on ECPs
6. Damages-Self (27)
Mitigating the risk that users suffer damages due to participating on the platform
7. Disputes (1)
Mitigating the risk that disputes between users may cause damages to them and other users
8. Employee errors (1)
Mitigating the risk that an employee of the platform makes mistakes
9. Damages-Third party (35)
Mitigating the risk that any third party suffers damages due to user participation on the platform or due to accessing the third party via the platform
10. User Violations (7)
Mitigating the risk that any party suffers damages because a user violates generally accepted rules while using the platform
11. Due diligence (35)
Mitigating the risk that the platform has not conducted due diligence of published companies
12. Financial (11)
Mitigating the risk that platform suffers financial losses
13. Fraud (5)
Mitigating the risk that malicious users commit fraud on the platform
14. Misrepresentation (2)
Mitigating the risk that users misrepresent themselves on the platform
15. Impersonation (2)
Mitigating the risk that users impersonate other individuals and companies, fictional or non-fictional
16. Funder rights (1)
Mitigating risk that funders do not get requisite rights in company
17. Information Privacy (35)
Mitigating the risk that information shared by a user may not be private to the user
18. Third party information privacy (4)
Mitigating the risk that user information obtained from third parties may not be private to the user
19. Privacy on third parties (35)

- Mitigating the risk that information shared with third parties via the platform may not be private to the user
20. Third party technology (14)
Mitigating the risk that third party technologies (e.g. cookies) damage user's private information
21. Information security (35)
Mitigating the risk that information shared by a user is not adequately secure
22. Information availability (39)
Mitigating the risk that user information is not available when the user requires
23. Information Confidentiality (32)
Mitigating the risk that user information is not confidential to the authorised parties only
24. Information Integrity (25)
Mitigating the risk that user information is damaged after user shares it (during transfer, storage, retrieval, etc.)
25. Investment (19)
Mitigating the risk that user suffers financial losses due to making an investment on the platform
26. User IP (34)
Mitigating the risk that user's IP is threatened/stolen while using the ECP
27. Platform IP (2)
Mitigating the risk that platform's IP is threatened/stolen
28. Third party IP (1)
Mitigating the risk that third party's IP is threatened/stolen by users accessing third party information on the platform/on third parties linked from the platform
29. Unsolicited publicly disclosed information (4/4)
Mitigating the risk that unsolicited publicly disclosed information (blogs, etc.) on the platform are threatened
30. Legal (50)
Mitigating the risk of legal challenges that a platform may be exposed to
31. Performance (23)
Mitigating the risk that the performance of a platform as a website/access tool (speed, response time, etc.) is unacceptable
32. Third party information deletion (3)
Mitigating the risk that the user information shared with third parties via the ECP is not deleted on deletion of account with the platform
33. Technology (3)
Mitigating the risk that the technology supporting the ECP does not function as per acceptable standards
34. User behaviour (17)
Mitigating the risk that the behaviour of users on the ECP affects other users, third parties, etc.
35. User knowledge of contracts (15)
Mitigating the risk that user does not have knowledge of the contracts she/he agrees to or the contracts currently in-force
36. User knowledge of local laws (2)
Mitigating the risk that user does not have knowledge of the local laws that apply to her/his use of ECP
37. Opportunity cost (1)
Mitigating the risk that users lose other opportunities if their campaign/investment on an ECP fails
38. User privacy (1)
Mitigating the risk that a user is threatened because of using/sharing information on the platform

6.3 Appendix 3 – Codes for risks legally mitigated by ECPs (iteration 2)

39. Security on third parties (5) Mitigating the risk that information shared with third parties via the platform may not be private to the user
40. Reputation (1) Mitigating the risk that reputation of the platform is directly affected
41. Black Swan (3) Mitigating the risk that the information is not available due to a force majeure event

6.4 Appendix 4 – Taxonomy of legally mitigated risks by ECPs

Category (# of references)	Sub-category (# of references)	Included Codes
Fraud (16)	General (5)	13
	Funder Rights (1)	16
	Impersonation (10)	1, 14, 15
Third Party (83)	To Third Party (36)	9, 28
	On Third Party (47)	19, 29, 32, 39
Compliance (53)	General (4)	2
	Platform Role (2)	3
	User Accreditation (47)	5, 11
Stakeholder Behaviour (26)	User Behaviour (25)	7, 10, 34
	Employee Behaviour (1)	8
Transaction (49)		4, 6, 25, 37
Financial (11)		12
Intellectual Property (36)	User's IP (34)	26
	Platform's IP (2)	27
Legal (67)		30, 35, 36
Technical Performance (26)		31, 33
Reputation (1)		40
Privacy (44)	Information Privacy (43)	17, 18, 20
	User Privacy (1)	38
Information Security (145)	General IS Security (35)	21
	Information Confidentiality (32)	23
	Information Integrity (25)	24
	Information Availability (53)	41, 22

7 References

- Ackermann, T., Miede, A., Buxmann, P., Steinmetz, R., 2011. Taxonomy of technological IT outsourcing risks: support for risk identification and quantification., in: ECIS. p. 240.
- Agrawal, A., Catalini, C., Goldfarb, A., 2015. Crowdfunding: Geography, social networks, and the timing of investment decisions. *Journal of Economics & Management Strategy* 24, 253–274.
- Agrawal, A., Catalini, C., Goldfarb, A., 2014. Some simple economics of crowdfunding. *Innovation Policy and the Economy* 14, 63–97.
- Ahlers, G.K., Cumming, D., Günther, C., Schweizer, D., 2015. Signaling in equity crowdfunding. *Entrepreneurship Theory and Practice* 39, 955–980.
- Aitamurto, T., 2011. The impact of crowdfunding on journalism: case study of Spot. Us, a platform for community-funded reporting. *Journalism Practice* 5, 429–445.
- Alter, S., Sherer, S.A., 2004. A general, but readily adaptable model of information system risk.
- Artiach, T.C., Clarkson, P.M., 2011. Disclosure, conservatism and the cost of equity capital: A review of the foundation literature. *Accounting & Finance* 51, 2–49.
- Aula, P., 2010. Social media, reputation risk and ambient publicity management. *Strategy & Leadership* 38, 43–49.
- Bandyopadhyay, K., Mykytyn, P.P., Mykytyn, K., 1999. A framework for integrated risk management in information technology. *Management Decision* 37, 437–444.
- Baucus, M.S., Mitteness, C.R., 2016. Crowdfunding: Avoiding Ponzi entrepreneurs when investing in new ventures. *Business Horizons* 59, 37–50.
- Belleflamme, P., Lambert, T., Schwienbacher, A., 2013. Individual crowdfunding practices. *Venture Capital* 15, 313–333.
- Benaroch, M., Lichtenstein, Y., Robinson, K., 2006. Real Options in Information Technology Risk Management: An Empirical Validation of Risk-Option Relationships. *MIS Quarterly* 30, 827–864.
- Bradford, C.S., 2012. Crowdfunding and the federal securities laws. *Columbia Business Law Review* 2012.
- Burtch, G., 2011. Herding Behavior as a Network Externality. *ICIS 2011 Proceedings*.
- Burtch, G., Ghose, A., Wattal, S., 2014. Cultural Differences and Geography as Determinants of Online Prosocial Lending. *MIS Quarterly* 38, 773–794.
- Burtch, G., Ghose, A., Wattal, S., 2013. An empirical examination of the antecedents and consequences of contribution patterns in crowd-funded markets. *Information Systems Research* 24, 499–519.
- Calvert, G., 1993. Highwire management: Risk-taking tactics for leaders, innovators, and trailblazers. *Jossey-Bass*.
- De Buysere, K., Gajda, O., Kleverlaan, R., Marom, D., Klaes, M., 2012. A framework for European crowdfunding. *European Crowdfunding Network (ECN)*.
- Estellés-Arolas, E., González-Ladrón-de-Guevara, F., 2012. Towards an integrated crowdsourcing definition. *Journal of Information science* 38, 189–200.
- Fiedler, K.D., Grover, V., Teng, J.T., 1996. An empirically derived taxonomy of information technology structure and its relationship to organizational structure. *Journal of Management Information Systems* 13, 9–34.
- Gao, H., Hu, J., Huang, T., Wang, J., Chen, Y., 2011. Security issues in online social networks. *IEEE Internet Computing* 15, 56–63.
- Gefen, D., Wyss, S., Lichtenstein, Y., 2008. Business Familiarity as Risk Mitigation in Software Development Outsourcing Contracts. *MIS Quarterly* 32, 531–551.
- Gerber, E.M., Hui, J., 2013. Crowdfunding: Motivations and deterrents for participation. *ACM Transactions on Computer-Human Interaction (TOCHI)* 20, 34.
- Gerber, E.M., Hui, J.S., Kuo, P.-Y., 2012. Crowdfunding: Why people are motivated to post and fund projects on crowdfunding platforms, in: *Proceedings of the International Workshop on Design, Influence, and Social Technologies: Techniques, Impacts and Ethics*.

- Giudici, G., Nava, R., Lamastra, R., Cristina, Verecondo, C., 2012. Crowdfunding: The New Frontier for Financing Entrepreneurship?
- Griffin, Z.J., 2012. Crowdfunding: fleecing the American masses. *Case W. Res. JL Tech. & Internet* 4, 375.
- Haas, P., Blohm, I., Leimeister, J.M., 2014. An Empirical Taxonomy of Crowdfunding Intermediaries, in: *Proceedings of the 35th International Conference of Information Systems*. Auckland, NZ.
- Harris, S., 2010. *CISSP All-in-One Exam Guide, Fifth Edition, 5th ed.* McGraw-Hill, Inc., New York, NY, USA.
- Hazen, T.L., 2012. Crowdfunding or Fraudfunding? Social Networks and the Securities Laws—Why the Specially Tailored Exemption Must be Conditioned on Meaningful Disclosure. *North Carolina Law Review*.
- Hemer, J., 2011. A snapshot on crowdfunding. Working papers firms and region.
- Hiennerth, C., Riar, F., 2013. The wisdom of the crowd vs. expert evaluation: A conceptualization of evaluation validity, in: *35th DRUID Celebration Conference*, Barcelona, Spain, June. pp. 17–19.
- Hildebrand, T., Puri, M., Rocholl, J., 2016. Adverse incentives in crowdfunding. *Management Science* 63, 587–608.
- Howard, J.D., Longstaff, T.A., 1998. A common language for computer security incidents. *Sandia National Laboratories* 10, 751004.
- Kappel, T., 2008. Ex ante crowdfunding and the recording industry: A model for the US. *Loyola of Los Angeles Entertainment Law Review* 29, 375.
- Kerlinger, F.N., Lee, H.B., 2000. *Foundations of behavioral research*. Fort Worth Publishing, Australia.
- Kim, K., Viswanathan, S., 2014. The experts in the crowd: The role of reputable investors in a crowdfunding market, in: *The 41st Research Conference on Communication, Information and Internet Policy*.
- Klöhn, L., Hornuf, L., 2012. Crowdfunding in Deutschland—Markt, Rechtslage und Regulierungsperspektiven. *Zeitschrift für Bankrecht und Bankwirtschaft-ZBB* 24, 237.
- Kuppuswamy, V., Bayus, B.L., 2015. Crowdfunding creative ideas: The dynamics of project backers in Kickstarter.
- Lampson, B., 2009. Privacy and security Usable security: how to get it. *Communications of the ACM* 52, 25–27.
- Larsen, K.R., 2003. A taxonomy of antecedents of information systems success: variable analysis studies. *Journal of Management Information Systems* 20, 169–246.
- Lehner, O.M., 2013. Crowdfunding social ventures: a model and research agenda. *Venture Capital* 15, 289–311.
- Lukkarinen, A., Teich, J.E., Wallenius, H., Wallenius, J., 2016. Success drivers of online equity crowdfunding campaigns. *Decision Support Systems* 87, 26–38.
- Mahler, T., Vraalsen, F., 2007. *Legal Risk Management for an E-Learning Web Services Collaboration*. Legal, Privacy and Security Issues in Information Technology, Sylvia Mercado Kierkegaard, ed 1, 503–523.
- Malhotra, A., Gosain, S., Sawy, O.A.E., 2005. Absorptive capacity configurations in supply chains: gearing for partner-enabled market knowledge creation. *MIS quarterly* 145–187.
- Mashburn, D., 2013. Anti-Crowd Pleaser: Fixing the Crowdfund Act’s Hidden Risks and Inadequate Remedies, *The Emory Law Journal* 63, 127.
- Mitra, D., 2012. The role of crowdfunding in entrepreneurial finance. *Delhi Business Review* 13, 67–72.
- Mitra, T., Gilbert, E., 2014. The language that gets people to give: Phrases that predict success on kickstarter, in: *Proceedings of the 17th ACM Conference on Computer Supported Cooperative Work & Social Computing*. ACM, pp. 49–61.
- Mollick, E., 2014. The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing* 29, 1–16.
- Mollick, E.R., Kuppuswamy, V., 2014. After the Campaign: Outcomes of Crowdfunding.

- Nahm, A.Y., Rao, S.S., Solis-Galvan, L.E., Ragu-Nathan, T.S., 2002. The Q-sort method: assessing reliability and construct validity of questionnaire items at a pre-testing stage. *Journal of Modern Applied Statistical Methods* 1, 15.
- Ordanini, A., Miceli, L., Pizzetti, M., Parasuraman, A., 2011. Crowd-funding: transforming customers into investors through innovative service platforms. *Journal of Service Management* 22, 443–470.
- Peltier, T.R., 2004. Risk Analysis and Risk Management. *Information Systems Security* 13, 44–56.
- Podar, M., Arenas, A.E., Goh, J.M., 2015. A Work-Systems Approach to Classifying Risks in Crowdfunding Platforms: An Exploratory Analysis.
- Rich, E., Gonzalez, J.J., 2006. Maintaining security and safety in high-threat e-operations transitions, in: *Proceedings of the 39th Annual Hawaii International Conference on System Sciences*. IEEE, pp. 130c–130c.
- Rich, P., 1992. The organizational taxonomy: Definition and design. *Academy of Management Review* 17, 758–781.
- Rommel, O., Gutierrez, A., 2012. Empirical Assessment of Risks in IS/IT Projects: Challenges for Managers. *ECIS 2012 Proceedings*.
- Ross, J.W., Beath, C.M., 2006. Sustainable IT outsourcing success: Let enterprise architecture be your guide. *MIS Quarterly Executive* 5, 181–192.
- Röthler, D., Wenzlaff, K., 2011. Crowdfunding schemes in Europe. *EENC Report 2011*.
- Sabherwal, R., King, W.R., 1995. An empirical taxonomy of the decision-making processes concerning strategic applications of information systems. *Journal of Management Information Systems* 11, 177–214.
- Schwienbacher, A., 2015. Entrepreneurial risk-taking in crowdfunding campaigns. *Small Business Economics* 1–17.
- Schwienbacher, A., Larralde, B., 2010. Crowdfunding of small entrepreneurial ventures. *Handbook of Entrepreneurial Finance*, Oxford University Press.
- Sherer, S.A., Alter, S., 2004. Information systems risks and risk factors: Are they mostly about information systems? *Communications of the Association for Information Systems* 14, 2.
- Smith, D., 2013. Navigating Risk When Entering and Participating in a Business Ecosystem. *Technology Innovation Management Review* 3, 25–33.
- Turban, E., Bolloju, N., Liang, T.-P., 2011. Enterprise social networking: Opportunities, adoption, and risk mitigation. *Journal of Organizational Computing and Electronic Commerce* 21, 202–220.
- Vilardo, M.F., 2004. Online impersonation in securities scams. *IEEE security & privacy* 2, 82–85.
- Wroldsen, J.S.J., 2013. The Social Network and the Crowdfund Act: Zuckerberg, Saverin, and Venture Capitalists' Dilution of the Crowd. *Vanderbilt Journal of Entertainment & Technology Law* 15.