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## Financial Innovation - Crowdfunding: Friend or Foe?

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### Abstract

A phenomenon with a considerable past, and with new conspicuous investment models and financial products and services proliferated through the Internet; financial innovation seems to be almost ubiquitous these days. While there are numerous advantages, especially nowadays through the exploitation of easily accessible, low cost and convenient e-commerce platforms, innovation in the finance sector does not come without its perils. Banks and traditional financial institutions are losing chunks of market share to virtual intermediaries and investors are operating in relatively less regulated and, consequently, less secure environments. Furthermore, from the perspective of all stakeholders, there is a Knightian uncertainty component of the long-term ramifications in investing in and through newly developed products and platforms. As such, it is only recently that economic history witnessed the outbreak of the sub-prime mortgage crisis caused by the unraveling of a chain of events interlinked through the imprudent use of “innovative” derivative transactions involving credit default swaps backed by the insatiable appetite of the “irrationally exuberant” investor and the easement of regulation paving the leeway for predatory lending. This paper investigates whether and to what extent innovative investment models such as crowdfunding, as the game-changer, forcing the tightly regulated securities markets to adapt to the rules of the WEB 3.0 era and relieved through the provision, Title III, of the JOBS Act, could be a potential peril. To that end, it discusses the evolution of the equity crowdfunding model in the realm of the technology push - demand pull framework and analyzes the current situation of the market.

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## 1. Introduction

Crowdfunding (“CF”), also called crowdfunding, represents a fairly new source of early stage venture funding, where a large number of people are virally mobilized through an online donation-or investment-based model, to contribute during a given time period, relatively small portions of funds with the aim of supporting a cause, project or business venture. Donation-based models are either set up to facilitate philanthropic giving or to provide non-material rewards to the donors, whereas investment-based models offer a claim to a debt or a share of equity (or a portion of profit or revenue) in exchange for the contribution of the investor (also referred to as the backer).

Though the history of collective fundraising goes back as far as the 18th century subscription or “praenumeration” model used to finance the printing of books (Corsten, 1991), the morphed practice of raising capital through online communities formed by “sheer strangers”, who may or may not be sophisticated investors depending on the legal restrictions of their home country, are rooted in the donation-based model spearheaded by a rock band’s fan funded reunion tour in 1997 (Feinberg, 2013). With its tremendous growth worldwide, CF increased from 21% to 143% from 2007 to 2011, and the equity crowdfunding (“EC”) share of the CF pie increased threefold, reaching 15% during the same period (Statista, 2014). The rapid evolutionary pace of today’s social network engines that facilitate instant access to huge easily and the growing funding gap, especially burdening the SMEs, and with its potential of democratizing finance to empower the third world, seem to have contributed significantly to the increasing interest in CF.

Due to the lack of a centralized and independent data collection agency, it is difficult to gauge the total size of the CF market based on EC platforms’ potentially biased disclosures. Predictions of a Bank-commissioned study (infoDev, 2013) are that the global CF market could reach between USD 90 million - USD 96 million over the next 25 years, which is almost 1.8 times the size of the global venture capital industry today. Furthermore, a Statista survey (2014) determined that, in the UK CF market, which comprises 74% of the total European CF market, the market value of EC projects as of the first quarter of 2014, amounted to 14 million GBP. It is most likely due to less stringent regulations and tax breaks granted to startups, that the UK EC market, with a growth average of 410% from 2012 to 2014, is emerging as a world leader. Therefore, the UK EC market, where 62% as of 2014 are unsophisticated - retail investors with no prior early stage or venture capital investment experience, merits a closer look.

According to the said survey, UK EC entrepreneurs that seek funds through this mechanism are primarily pulled into the system because of its transparency and the ability to raise money on their own terms. The prospect of financial returns, the ease of the investment process and control over where the money goes, on the other hand, are the main features that trigger investments. An alarmingly large percentage, that is almost half of the sampled UK EC investors, use as the source of these investments money that they would have saved. Entrepreneurs, in return, claim that the challenges they encounter during their EC fundraising efforts are, among others, working with the EC platform, managing investor relations, finding the right EC platform, communicating with prospective investors, deciding how much equity to offer, and the application and due diligence process.

While funding new ventures is risky in itself with very low survival in the early years, this risk, as is commonly known, is even more for equity holders rather than bond holders. Naturally, EC is surely riskier than debt-based CF and as, such, represents the riskiest sub-category of the CF model.

Although the EC still accounts for the smallest portion of the global CF market, the ratification of Title III of the JOBS (Jumpstart Our Business Startups) Act is a potential game changer. The act will lift the restrictive clauses of the Securities Act of 1933 that made it almost impossible for the EC model to proliferate in the US. As a natural outcome, EC is likely to expand both in scale and in scope through the inclusion of small or “unsophisticated” investors, which can be thought of as relatively amateur compared to their rather professional counterparties.

Therewith, EC will most likely pose a threat to traditional investment products offered through mature financial services industry intermediaries.

According to finance theory, the higher the risks attached to a certain cash flow, the higher should the compensation be in the form of higher returns. EC, with its very short track record and huge shares of non-finalized or unsuccessful projects, inherently, contains huge incalculable risks. It is this Knightian uncertainty component associated with long-run implications of financial innovations and the risk exposure faced by immediate EC stakeholders that is being explored in this paper. So then is EC a means towards the “democratization” of finance or the sword of Damocles hanging over the head of all those involved?

To the best my knowledge, little is known about the riskiness associated with CF and no study, as of yet, has addressed the risks from a stakeholders’ perspective during each stage of the lifecycle of a typical EC process.

## **2. Theoretical Framework and the EC Market**

Research on CF is beginning to emerge, though it mostly focuses on donation-based funding (Mollick, 2014). The technology push - demand pull framework offers a viable explanation for the surge in EC platforms: The subprime mortgage crisis, which was triggered by imprudent lending practices of greedy investors and loose regulatory control, in its aftermath, created a more challenging lending environment, or a “funding gap”, especially for SMEs and new ventures in need for these funds (the “demand pull” factor). Business angels, and, at latter stages, venture capitalists partially served as remedy, however, only to the lucky few of entrepreneurs who had the awareness of their existence, the communication skills to access them and make their “pitch” to these organized groups of investors. On the contrary, online investment platforms (the “technology push” factor) relieve both investors and entrepreneurs from the burdens of the traditional early stage investment process by providing quick, easy and low cost access to a variety of projects, in a transparent setting facilitated by a third party.

The importance of angel investors has increased in recent years given the difficulties young innovative firms face in securing finance from other channels (Wilson, 2011). Meanwhile, venture capital firms are paying more attention to later-stage investments, and, coupled with the post-2008 crisis growing demand for cheap and accessible funds, have left a significant funding gap at the seed and early stage. Angel investors, operate in this investment segment and thus help to fill this increasing gap. EC departs from the models of traditional angel investors and venture capital firms since transactions are intermediated by an online platform. Some platforms are more active in screening and evaluating companies than others. Also, their role during the investment and post-investment stages can vary significantly. EC platforms, in general, follow the phases described in this paper.

## **3. Stakeholder Risks**

There are three direct stakeholders to the EC model: the entrepreneur, the investor, and the EC platform. These players may not be fully aware of the immediate and long-term risks they have to bear prior to, during, and in the aftermath of the EC process. Some entrepreneurs do not fully comprehend the unique challenges that going down the EC route can bring. Investors, especially unsophisticated ones, may underestimate the risks associated with high-risk investments or misread signals. EC platforms, on the other hand, carry the burden of acting, both, as an investment bank and an auditor.

From a legal standpoint, the investor buys a stake in the company, where the value of the venture must be estimated in advance, a task extremely difficult for a company with no track record. Many more complexities pose problems that are distinct and more fundamental than those of other CF models. And while, there is an increasing amount of papers discussing the benefits of EC, little is known about the risks, most probably attributable to data

scarcity and short historical records of EC projects. However, the market is expanding quickly and is likely to become larger with JOBS Act becoming effective in the US.

Fig. 1. shows how much risk each immediate stakeholder is exposed to during the lifecycle of the EC process. While the investor and the EC platform carry relatively higher risk during the pre-launch period, this risk changes in intensity and type as the EC process evolves.

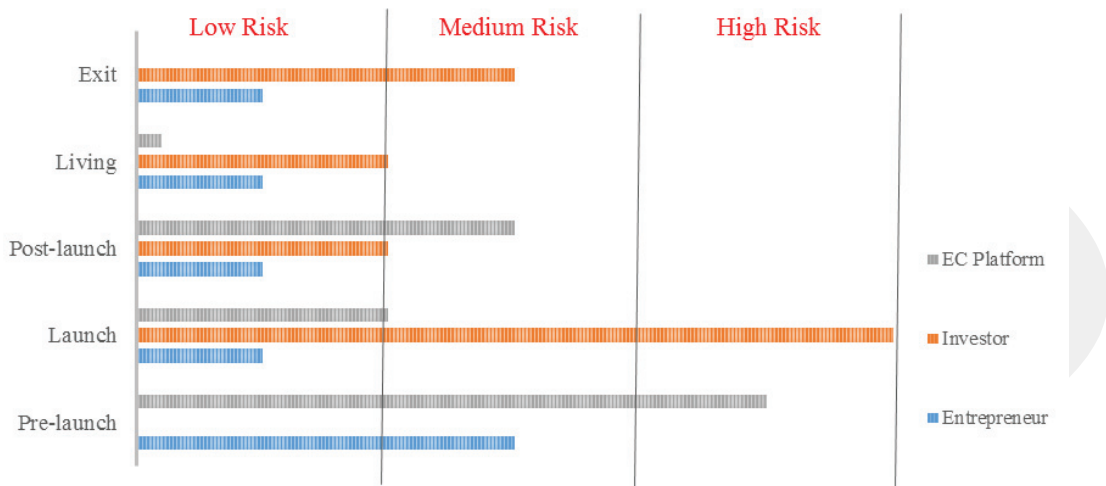


Fig. 1. Stakeholder risks during EC process

The CF cycle starts with the pre-launch period, which involves the EC platform and the entrepreneur. At this time the entrepreneur chooses the EC platform and consequently the EC model, decides on the target funding amount and equity share to be offered, gathers all required legal documentation and prepares for the EC campaign. The EC platform, by regulation, is responsible to ensure that the entrepreneur is fit to be listed on their platform, the offer price is right and all documentation requirements are fulfilled.

The launch period is when the entrepreneur’s pitch is alive and listed on the EC platform. At that point it is the duty of EC platform to provide smooth online visibility and access to all registered investors with correct information about the equity pitch, such as the percentage and amount of funded equity, the target amount, the number of investors and what percentage of ownership they represent, and the days left till the expiry of the pitch, along with further details about financials, the market and sectors and home location.

The post-launch period is relatively shorter and is the time when the EC platforms coordinate funds and equity share flows between investors and the entrepreneur.

During the living stage, the fully crowdfunded company has started operations with its new shareholder profile. At the exit stage, the company may decide that it needs to grow and may mobilize efforts to gain access to first round funding through professional investors in the form of venture capital. The exit stage for the investor, in contrast, may come at a different time when the investor wants to leave the company due to various reasons.

Table 1. shows the risks faced by the immediate stakeholders according to risk types: Financial, regulatory, operational, reputational and strategic.

Table 1. Types of stakeholder risks at different stages of the EC cycle

	Pre-launch	Launch	Post-launch	Living	Exit
<b>EN</b>					
F	(1) Platform comparability (2) Costs of ignorance	(6) Partial failure of pitch			
RG			(11) Fulfilment of obligations		(13) Further funding
O				(12) Managerial problems	
RP		(7) High visibility			
S	(3) Opportunity costs (4) Model selection / Investor value (5) Unfit product/service for EC	(8) Privacy concern (9) Market positioning / Investor mix (10) Information asymmetry			
<b>IN</b>					
F		(1) Low risk awareness/ Payoff uncertainty/Valuation and ROI/ Comparability		(4) Performance tracking	(7) Liquidity
RG					
O			(3) Delivery risk	(5) Managerial problems	
RP					
S		(2) Diversification /Information asymmetry/Opportunity cost		(6) Dilution of shares	
<b>ECP</b>					
F	(1) Cost of appraisal and due diligence/ Fraud detection				
RG			(4) Intermediary duties		
O	(2) Costs & Expenses				
RP					
S	(3) Market positioning/ Survival		(5) EC success/ failure		

EN, IN and ECP stand for entrepreneur, investor and EC platform, respectively. F, RG, O, RP and S represent financial, regulatory, operational, reputational and strategic risk categories, respectively.

### *3.1. Potential Risks to Entrepreneurs*

#### *3.1.1. Platform Comparability*

Due to the lack of a single supervisory authority, selection of the "right" platform that fit the entrepreneurs' needs is a somewhat ambiguous task. A thorough market research on the platform success rates, the fine print of the platform contract, the length of the campaign, and the profiles of similar competitors deems necessary. Thus, some of the questions the entrepreneur should ask herself are: What are the pros and cons of the EC platform, what are my expectations and time frame for fundraising, are there similar pitches already listed that may cannibalize my potential market share, does the EC platform have the right mix of sophisticated/unsophisticated investors that may be my potential shareholders?

#### *3.1.2. The Cost of Incomplete Information*

The financing of the EC process with related costs and expenses may lead entrepreneurs to form unrealistic expectations and underestimate risks. The regulatory due diligence requirements, CPA audits and filing of legal documentation may result in going over budget and campaign failure even before the pitch goes live. Furthermore, the target amount to be raised, the share price and timing, viable operating and productions budgets are important decisions that may cause financial distress later on.

#### *3.1.3. Opportunity Costs*

The relevant opportunity costs are mostly those of not going down the traditional angel investment route and benefiting from such investors expertise and resources.

#### *3.1.4. Model Selection and Investor Value*

Entrepreneurs need to be aware of the particular features the ECP offers. For instance some platforms only allow for fully funded projects, whereas others release the funds of partially successful projects as well. Some platforms act a special purpose vehicle and create a pool of money; others only facilitate operations. And then there is also the question of what type of investors prefer investing with the specific platform. The logic of restricting EC to sophisticated investors originally was that these are supposed to exercise professional judgement and understand the risks of new ventures. Most of these high-net-worth individuals have a wealth of management experience and other resources from which the entrepreneur could benefit. With the accreditation of unsophisticated investors investing "dumb money", and the emergence of too many small investors scaring away potential institutional investors who would potentially be willing to provide extra funds along the way, entrepreneurs may lose out on potential investor value.

#### *3.1.5. Unfit Product or Service*

Some products or services may be more adequate for other more traditional types of angel funding due to their complexity and originality.

#### *3.1.6. Failure of Pitch*

If the entrepreneur has opted for an "all-or-nothing" EC model where he leaves empty-handed if the full target amount cannot be raised, all the hassle has been in vain. As a precaution, EC platforms enabling partial-funding can be chosen.

#### *3.1.7. High Visibility*

High visibility may cause the venture look too desperate or unprofessional and hinder future potential through organized investor networks.

### 3.1.8. *The Privacy Concern*

The privacy concern may create what Cooter and Schaefer (2012) call the double trust dilemma of innovation, where the investor is faced with entrusting his money to the entrepreneur who, in return, discloses his idea to the investor. This relationship gets complicated when using an online platform where the entrepreneur has to put his best foot forward and publically disclose his innovative idea to the digital world without the security of having a non-disclosure agreement, and the investor, based on a limited information-set, has to decide on the best venture to invest. Consequently, if the idea can be replicated easily, the entrepreneur's product faces digital commoditization, especially following with the American Invents Act, which grants the first person to file a patent application the ownership of the invention.

### 3.1.9. *Market Positioning and Investor Mix*

The entrepreneur may be placed in a favorable or unfavorable position in terms of visibility, furthermore this positioning and the wording and technical features used in the description of the pitch may put the venture in a disadvantaged position in terms of attracting the right investor mix. The crowd is known to be quite sensitive according to Mollick (2014) who in his research shows that a single spelling error decreases the chance of funding success by 13 percent.

### 3.1.10. *Information Asymmetry*

As with stock markets, the transparency inherent in EC platforms can exacerbate information asymmetry among investors and push unsophisticated investors to go with the crowd. In response rational investors may take advantage by counteracting on this herding behavior.

### 3.1.11. *Fulfilment of Obligations*

If the entrepreneur does not, or the EC platform fails to, transfer the shares to the investor, legal repercussions are eminent.

### 3.1.12. *Managerial Problems*

Entrepreneurs may underestimate the costs of fulfillment; go over budget or experience delays. Furthermore company management and equity management require two distinct skillsets. EC entrepreneurs need to have a solid understanding not only of the product or service they are offering but also of the how to anticipate market demand and capacity, how to interact with shareholders and resolve potential managerial conflicts.

### 3.1.13. *Further Funding*

A CF platform can help a company get publicity, but it also shines a harsh spotlight on the venture at a time when it is still formative and volatile. Entrepreneurial firms that are financed via CF are often too small for an IPO on the stock market. Exit opportunities are thus restricted in crowdinvesting (Hornuf & Schwienbacher, 2014).

## 3.2. *Potential Risks to Investors*

### 3.2.1. *Low Risk Awareness and Payoff Uncertainty - Valuation and ROI - Comparability*

Since the payoff is highly uncertain, EC investors have less incentive to perform costly and time-consuming due diligence. While the valuation of startups which predominantly have high intellectual capital as opposed to fixed assets, is already a difficult task, EC investors with unsophisticated ones leading the way, will most probably lack the expertise and skills to perform adequate due diligence checks. And become too optimistic about expected returns. Dividends and capital gains are the two possible types of returns an investor can expect from an equity investment. However, with startups without a track record, investors are left in the dark about dividend payout policies. Similar to the entrepreneur, the investor too faces the lack of platform comparability problem.

### 3.2.2. *Diversification - Information Asymmetry - Opportunity Cost*

Among the strategic risks unsophisticated investors, in particular may face, is that they may not be aware of

investment basics and diversification strategies. As observed in stock markets, unsophisticated investors, may either imitate the trading behavior of visible institutional investors, invest with syndicates or or imitate the crowd. Investors may prefer ECPs over traditional angel networks for reasons such as ease of access and comfort of transparency and forego the benefits of interacting with more organized network of angel investors.

### 3.2.3. *Delivery Risk*

If not audited properly, entrepreneurs who fail to deliver pledged results may defraud investors or ECPs may fail or default entirely.

### 3.2.4. *Performance Tracking*

Mollick (2014) suggest that investors face information flow risk, since there's no statutory requirement for unlisted companies to disclose any change in the way the business is run, including any change to operational activities. Thus, performance tracking becomes difficult for the shareholder, who has to rely on self-reported information by the entrepreneur.

### 3.2.5. *Managerial Problems*

Managerial problems and operational hold-ups are more likely to emerge in crowdfunded startups due to their shareholders structure and inexperienced entrepreneurs. Those who invest through CF may be left in the dark about their company's operations and progress.

### 3.2.6. *Dilution of Shares*

Dilution or crowding out occurs when a company issues more shares. If existing shareholders do not buy any of the new shares, their proportionate shareholding of the company is reduced, or diluted. Apart from affecting the shareholder's value, this can also affect voting and dividends. Venture capitalists and business angels can include anti-dilution provisions in their covenants that protect against unfavourable exit conditions. Moreover, business angels sometimes stage their provision of capital, notably as a way to reduce their risk exposure. Therefore the investor should be aware of the share types offered by businesses as part of an equity investment and the implications for the dividend payments, voting rights, creditor preference and attractiveness to potential buyers.

### 3.2.7. *Liquidity*

There is no secondary market for EC shares meaning that the only realizable gain is from dividends or from the actual sale of the company (thus no capital gains from selling shares is possible) as opposed to a VC investment, which secures cash backs through IPOs or partial sell-offs.

## 3.3. *Potential Risks to EC Platforms*

### 3.3.1. *Cost of Appraisal and Due Diligence - Fraud Detection*

In a regulatory ambiguous environment the ECP carries the burden of correctly appraising the venture, performing due diligence, identity checks and verifications mitigating the risk of fraud and scams. In that sense, the ECP is working as a checks and balances mechanism in EC market.

### 3.3.2. *Costs and Expenses*

Due to the growing popularity of EC and broadening customer base, EC platforms face higher maintenance costs. Also risks of cyber attacks necessitate elevated security barriers and supplemental infrastructure investments.

### 3.3.3. *Market Positioning and Survival*

With increasing EC platforms, setting the right price ticket price is crucial for the ECP's market positioning and survival.

### 3.3.4. Intermediary Duties

The platform carries the burden of facilitating the physical flow of funds and shares.

### 3.3.5. EC Success – Failure

The failure of the pitch or a short-lived crowdfunded venture may signal incompetency of the platform resulting in loss of reputation.

## 4. Conclusion

CF, particularly for its potential to provide equity funding to startups, is increasingly attracting attention. Providing funding to young and innovative firms is particularly relevant given their importance for job creation and economic growth (OECD, 2013). Growing funding difficulties necessitate alternative forms of financial intermediation. In light of the risks outlined in this paper, if regulated and standardized practices are applied, EC may be a game changer not only for startups but for impoverished nations as well. If the growth in EC continues at its present pace, it will soon change the financial intermediation landscape.

While some opponents to the EC system can go as far as to demand that unsophisticated investors should be dismissed from the EC system entirely, others argue that innovative products and services are the major causes of financial crises. However, the benefits of democratizing finance should not be overlooked. After all, wasn't it the sophisticated investors like famous investment banks Lehman Brothers and Bear Stearns, whose risk appetite led to the packaging of lower-quality mortgage loans into derivative instruments ultimately culminating in the mortgage crisis? Thus, one can argue that the sub-prime mortgage crisis is not attributable to a lack of rationality or sophistication, but an elevated risk appetite taking advantage of loosely regulated market.

In this realm, in order for EC to flourish healthily, the task rests with the regulators to implement risk-reducing measures such as those addressed in the minutes of the 2nd European Crowdfunding Stakeholder Forum (2014): How to account for cross-border transactions. The possibility of establishing EC shares to be listed in secondary markets

- Creating put and call options for better exit possibilities for investors
- Increasing transparency concerning shareholder rights
- Having a certain percentage of professional investors undersign the financial instrument
- Disclosing information about credentials and nature of who is performing the pricing of the company, the pricing methodology and having common pricing guidelines
- Establishing a third party auditor to provide objective judgment about financial and quality of the company
- Drafting an “investor rights charter” which would be more visible and perhaps more effective for investors
- Imposing self-regulation and facilitating transparency
- Educating investors and informing them about selective criteria for the projects and valuation as facilitated by EC platforms
- Adopting of a code of conduct to stimulate professionalism in the industry

- Establishing a standardized information sheet that provides for transparency and comparability of platform

Until these measures are implemented, investors who are the stakeholders facing the highest risks, should exercise utmost prudence, continue to diversify their investments and avoid channeling all their money planned for investment to EC projects.

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