# **Wisdom of the Crowds:**

## Financial Literacy and Crowdfunding

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#### **Abstract**

Crowdfunding (CF) is a social-network-based form of funding venture projects, and it currently involves four models: donation-based, reward-based, lending-based, and equity-based. Under the "JOBS Act," the CF platform will undergo development to allow legitimate investment opportunities for possible financial gain. One troubling aspect of current CF participation is the difficulty of meeting all obligations of funded ventures, while another is the view held by funders that CF is essentially a donations platform rather than an investment instrument. The lack of performance legitimacy and social trust may hamper the development of CF as a viable investment tool. The absence of formal oversight and project planning data has been associated with high failure rates.

One due-diligence tool for both project founders and funders can be an online form for financial literacy in this social context, including survey, risk-ranking score, and information sections. Interview data and CF site analysis serve as support that there is need for such measures in this exploratory study.

#### Introduction

Crowdfunding (CF) bypasses formal institutions and instruments of financial management and control by means of social-based networking through Internet platforms. There are four types of CF models: donation-based, reward-based, lending-based, and equity-based. With donation-based CF, there is no expected financial return. With reward-based CF, products or services are offered to project funders. Lending-based CF allows capital to be raised through loans that must be repaid. Equity-based CF allows investments in exchange for equity (ownership interest) or shared revenue.

CF platforms may be used after efforts to obtain stakeholder capital using formal methods have failed or because they are closer to the sociotechnological space wherein participants work, live, and feel comfortable. Due to the personalization possible through social networking, funders may perceive CF as an extension of their own interests rather than a strictly financial activity (Allison & Townsend, 2012).

CF signals that a funded project, product, or service is desired by society or meets a need when the funding goal is met. However, most project founders fail to develop the projects, products, and services adequately and/or on time once receiving funds. One of the unanswered questions about CF is whether it actually leads to the development of successful products and

services (Mollick, 2012). Also yet to be determined is whether CF initiatives result in impactful, innovative contributions and economic change for its participants and the general economy.

This paper looks into factors that may impact and influence the involvement and success of CF participants. This exploratory study considers due diligence programs, financial literacy, and other variables on CF-based participation as well as CF as a legitimate funding tool and performance viability.

The research question for this study is the following: What factors are associated with the performance of founders of new ventures/projects and the participation by socially based funders using CF? Poor performance can be considered as a failure to meet obligations on time or a lack of funder support. Factors may include financial literacy, CF application and due diligence processes, and social interaction design. CF success in this context is determined by the delivery of products or the performance of services as declared during the initial application process. Open measures integrated into the CF application process may help to ensure success.

## **Background**

Crowdfunding (CF), also known as crowdfinancing or hyperfunding, is a new way to secure necessary capital or resources for projects and businesses by soliciting funds, which supporters may offer in small or large amounts (e.g., a minimum of \$1), from enough people to reach the funding goal via the Internet. ArtistShare, which launched its initial project in 2003, is credited as the first CF platform for artists (ArtistShare, 2012).

The use of CF is expanding with the help of easily accessible digital networking technology that provides the ability to link, blog, and demonstrate with embedded video. Following a long history of shared software development found in the open-source movement, where users share and develop coding and online systems drive transaction security and order fulfillment, digital platforms have begun to morph into socially constructed places to reach a wide audience for "hits," votes, and comments.

In addition to artistic/creative projects, CF platforms are now being used to fund a variety of projects such as disaster relief efforts, scientific research, technological innovations, and new business ventures. In 2011, there were approximately 331 platforms worldwide, with an expected increase of 60% by the end of 2012 (eConsultancy.com, 2012) (See Figure 1). The ability to exchange donations and equity as forms of social votes toward project completion through CF has grown to the point that CF will become the foundation for a new form of investment instrument due to the passing of the Jumpstart Our Business Startups (JOBS) Act (Farrell, 2012; Prive, 2012).

## **Crowdfunding-Venture Performance Issues**

Essentially, there is "...uncertainty about the long-term implications of crowdfunding, such as whether existing projects ultimately deliver the projects they promise. In short, this important, and growing, area of entrepreneurial and government activity is understudied, even as both practice and policy continue to rapidly advance" (Mollick, 2012). Of the CF research reviewed to date, it was discovered that 75% of project founders deliver projects later than expected, even though great efforts are made to fulfill obligations as declared. Furthermore, the degree of delay correlates to the level and amount of funding a project receives. The larger the project and/or funding received above the funding goal, the longer the delay (Mollick, 2012).

The principle objectives of this study include the following: (1) to explore descriptive associations between project failure and the lack of external accountability; this may be related to the simplicity and "social voting" nature of the reward-based CF application/donation process, (2) to introduce due diligence and financial literacy tools on CF social sites as methods to increase the likelihood that project obligations will be met on time and increase trust, and (3) to identify social-network participant values and assumptions at play in processes of the online CF environment and the motivational values of participating.

557% 452% 470%<sup>2</sup> 294% 200% 138% 100% 2007 2008 2009 2010 2011 2012 (Est.) 45% GROWTH 38% 47% 54% 60%

Figure 1. CF Numbers in Statistics

Source: eConsultancy.com

#### **Literature Review**

"Crowdfunding" as a social network activity was first mentioned in the popular press in association with "crowdsourcing" in 2006 (Howe, 2006). Crowdsourcing is a phenomenon that sprang from the inclination of people to gravitate toward customized interests and share communications through interactive public network websites. More sophisticated interfaces and mobile devices expanded the ability to request information, including topic research related to social causes and innovation processes.

Various studies have looked at CF aspects, such as agency, (Ley & Weaven, 2011), process taxonomy (Geiger, Schulze, Seedorf, Nickerson, & Schader, 2011), innovation (Smeets, Chapin, & Kaashoek, 2012), expertise (Madsen, Woolley, & Sarangee, 2012), and microfinancing (Galak, Small, & Stephen, 2011). One academic paper that covered aspects of CF using US-based projects on arguably the largest site for CF, Kickstarter, revealed that through the platform, participants pledged over \$198 million in funding for over 46,902 projects (Mollick, 2012). However, the study revealed that only 25% of reward-based projects, according

to data from Kickstarter, are delivered according to schedule (See Figure 2). Delayed projects, which consist of 75% of reward-based projects, can be considered partial failures. Projects that are partial failures are projects that do not meet all obligations related to time, cost, product quality, product performance, and expectations. Projects that are complete failures are those that are cancelled. The Kaplan-Meier Failure Curve for Project Delivery, shown below, is a graph that shows the percentage of projects and giveaways delayed in delivery versus time.

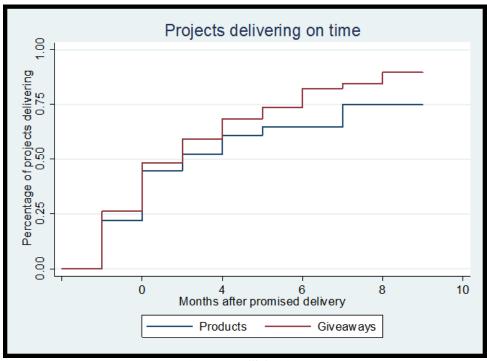


Figure 2. Kaplan-Meier Failure Curve for Project Delivery

Source: Mollick, 2012

However, most of these studies looked at the business-utility side of CF rather than both the venture founder and funder sides in conjunction with the platform site itself as informed social actors. This study is focused on the informal venue of CF versus more formal institutions to explore motivations, success factors, and the general economic contribution of users and developing platforms. Contributions include the values of subjective social elements versus objective rational structures in light of norms that are enforced currently in formal institutions. These formal institutions serve as gatekeepers between ventures, investors, and financial transactions, and hence, financial value. Innovations with credit payment systems coupled with CF innovations point to the development of financial management tools and structures that sidestep the control of formal financial institutions. Understanding the social transaction is important.

Related to the interaction of the "crowd" with financial judgment and activities is the topic of financial literacy. Studies to date have focused on knowledge about bank accounts, insurance, stock markets, and other investment tools directed at high school students and the sophistication of their financial education and subsequent activities (McCormick, 2009). This paper takes the discussion outside of the school environment to explore financial literacy issues

in the social context of CF. Here, adults have an opportunity to participate in CF from the basis of their interactions with "real life" ventures.

## **Research Design**

In order to explore attitudes and expectations concerning participation in CF, people were interviewed regarding social investing processes. Major CF sites were visited to assess the types of information and processes used. The pilot design is descriptive and exploratory.

## **Sample and Data Collection**

After the initial development of question topics, six people were interviewed to explore basic attitudes and beliefs about CF. Respondents were representative of the general population of social networking users. Ethnicities included African-American, Asian, Latino, and White. Interviewees represent US-born citizens, second generation citizens (citizens whose parents were naturalized in the United States), and immigrants (noncitizens or naturalized citizens). The education levels represented include high school graduate, associate's degree, and bachelor's degree.

In order to understand general perceptions and motivations leading to CF participation, interviewees were asked general questions about CF such as their preferred type, likelihood of participation as both founder and funder, and preferred methods of raising capital. Four out of six (66.67%) would pursue CF as an option for raising capital; five out of six (83.33%) would participate as funders if wealthy; and five out of six (83.33%) would obtain loans as a last resort.

## **CF-Site Descriptions**

CF platforms were reviewed based on rankings. A highly ranked sample platform is RocketHub, which is used to fund a variety of projects ranging from creative/artistic endeavors to scientific research. WeFunder, another platform considered, is designed to allow individuals to locate and invest in new ventures. The platform is equity-based and consequently subject to Securities Exchange Commission (SEC) regulations. Therefore, it will not be fully operational until the SEC has finalized rules for CF. KickStarter, even though designed primarily for creative projects, is the most widely used CF platform worldwide, with current and historical data on projects available through the website.

## **Analysis and Results**

Interviews were qualitatively analyzed for similarities and differences in order to explore trends in perception, behavior, and preferences related to CF and formal funding. CF sites were reviewed for site-available information about financial topics and application processes. Representatives of formal institutions were sought for industry input on attitudes, trends, and policy issues.

#### **Respondent Feedback**

All respondents chose donation-based funding as the most appealing type of funding and loan-based CF as the least appealing. According to respondents, CF would likely be pursued if people know about and are interested in the project, only as part of a group, or only after traditional methods have been exhausted. Furthermore, it is viewed as an easy way to reach a lot of people through the Internet, a useful tool, and risk-free for founders in that there is "nothing to

lose." All respondents described aspects of social media/networking as very important or crucial to meeting funding goals.

Various methods of raising capital (\$2000) were explored. Options for the sources of capital included CF, savings, loans, a second job, family, and other means of bootstrapping. There was only one mention of CF as a preferred or primary source.

According to responses, the likelihood of financially supporting a CF project is based on funder wealth, whether a worthy cause is being supported, whether there is enough interest in the project, and the reward offered. Participation in CF as a funder may be unlikely due to uncertainty of the outcome (i.e., it is viewed as a gamble).

Regarding the topic of trust in the decision to fund a CF project, responses included giving freely (trust not an issue), doing research to prevent being conned, refraining from future participation if tricked once, funding only with a personal connection, and trusting the person as a requirement. One noted that all investing activities require trust.

In addition, one respondent saw CF as a social leveling mechanism:

"It would be a great thing for society if CF were to really take hold. But traditional powerholders are going to try to gain control and conform CF to their traditional models. The system is exploitive the way it is set up now. There are things members of ethnic [nonwhite] cultures want to do that traditional investors will not want to invest in because those ideas do not fit their criteria. So the idea of CF as a new model of financing is appealing to target those who have been left out by traditional models."

#### **CF Sites**

The partial project failures based on delays may be due to the lack of preparation requirements during the application process for reward-based CF platforms. Formal means of raising capital, such as obtaining a bank loan, require extensive preparation and documentation. The documentation required typically includes financial statements, information about operations, forecasts, and venture profiles. Bypassing these instruments of financial management and control to raise capital may forfeit the opportunity for participants to exercise effective due diligence and plan projects or receive assistance in doing so. This may explain why it takes an average of five weeks for lending-based crowdfunded projects to be completed, whereas reward-based crowdfunded projects are completed in an average of nine weeks (eConsultancy.com, 2012). Since lending-based CF platforms have similar requirements as formal lending institutions, their results are used in the analysis.

Some of the main factors leading to the delay or failure of any project include improper planning, plans that are too ambitious, inadequate financial estimations, plans that are not based on previous experience, and details that were not considered. Research presented at the symposium of the Project Management Institute revealed the three variables (out of 24) that have the highest impact on project performance: "appropriate planning, clear responsibility of the team members, and planning control" (Toader, 2010).

#### **Feedback from Formal Institution Representatives**

Despite several attempts to conduct interviews with representatives of formal institutions such as banks and credit unions where small ventures might first seek funding, none of the respondents followed through with interview appointments or data. This may reflect a casual

attitude about social versus formal financial processes, regulatory and company policy issues about discussing the topic, or a lack of information about the topic.

## **CF Application Activities**

There are a number of models that can be employed to obtain venture capital. For example, a company may raise capital by selling stock through an initial public offering (IPO), which involves strict due diligence activities, or obtaining a bank loan. The application process for a small business loan varies among lenders. However, formal lending institutions typically require the same level of disclosure regarding the business under review. To investigate the simplicity of initial CF platform activities and analyze due diligence measures, the securities (equity), bank loan, and CF application processes were compared. Table 1 illustrates the differences.

Table 1. Funding Processes

	<b>Equity Investments (IPO)</b>	Bank Loan	Reward-Based CF
Required information/documents	<ul> <li>Registration statement</li> <li>Details regarding offering</li> <li>Financial statements</li> <li>Management background</li> <li>Corporate governance measures</li> <li>Initial prospectus</li> <li>Additional company information</li> </ul>	<ul> <li>Criminal record</li> <li>Resumes</li> <li>Business plan         <ul> <li>Profit &amp; loss statement</li> <li>Projected financial statements</li> </ul> </li> <li>Personal credit report</li> <li>Business credit report (if existing business)</li> <li>Income tax returns</li> <li>Personal financial statements</li> <li>Bank statements</li> <li>Legal documents (e.g., business licenses, franchise agreements, articles of incorporation)</li> </ul>	<ul> <li>Short description of project</li> <li>Project video</li> <li>Creator profile <ul> <li>Photo</li> <li>Facebook information</li> <li>Biography</li> <li>Relevant website links</li> </ul> </li> <li>Requested pledge amount</li> <li>Delivery date</li> <li>Reward value</li> </ul>
External participants	<ul><li>SEC</li><li>Underwriter</li><li>Investors</li></ul>	<ul><li> Underwriter</li><li> Loan officer</li></ul>	<ul><li> Sometimes platform creator</li><li> Funding participants</li></ul>

The application process of the widely used CF platform Kickstarter, which offers data about its platform, was analyzed. Since its launch in 2009, Kickstarter has been used by 2.6 million people to fund projects (Kickstarter, 2012). The platform supports creative and technological projects only, which are defined by the site creators as having a definite start and

finish and do not require maintenance to exist. In addition to the general reward-based CF requirements, design and technology projects must include "detailed information about the creator's background and experience, a manufacturing plan (for hardware projects), and a functional prototype."

## **Discussion and Conclusion**

Current CF platforms, prior to upcoming SEC regulations, with social networking mechanisms and Internet media, serve as the only means by which the investors and donors of reward-based CF projects can exercise due diligence to assess the capabilities and identities of founders. Of the three largest and most prominent CF platforms, which are also reward-based, none require founders to submit specific documentation, such as resumes, that can be used to assess management ability or expertise related to the project.

These platforms also do not offer a means of ensuring that founders meet certain criteria or have acquired the skills/knowledge that would indicate a likelihood of success. Furthermore, they lack simple financial literacy surveys and informative sections for participants, both funders and founders. Such measures can be used to predict performance and determine whether additional measures should be taken by or provided to founders to increase performance levels.

It must be noted that some lending-based and equity-based CF platforms have similar requirements as those of formal financial institutions (e.g., credit scores, profit and loss statements, and financial projections). These platforms may also offer assistance in preparing the necessary documents. Therefore, applicants unfamiliar with financial document preparation may, through that process, have the opportunity to gain business skills that may be beneficial during project initiation and completion.

Requiring verifiable information about the venture/project and taking other such measures place a burden on founders to more carefully plan details of the project and think beyond reaching a funding goal. For example, the application process for a small business loan requires the applicant to respond to a series of questions about the management team, assets needed to be purchased, potential suppliers, and ways the loan will be used. Such a thorough process can provide information about team past performance and can be used by investors to evaluate the merit of the founders and likelihood of success.

In addition, the planning required to complete the formal application process offers the opportunity for the identification of risks that can influence a project. The risks associated with a project may influence production schedules, cost, product quality, trust, product development, and product realization. Therefore, the planning process is vital to the success of a project and yet is complicated, possibly involving forecasting, prototype development, and many production decisions.

Currently, a small number of owners and entrepreneurs actually seek assistance from formal business organizations. Of those needing development and production assistance, or what Young refers to as "manufacturing assistance," almost none were reported to request it, whereas 80% requested assistance in the area of raising capital (Young, 2010). However, due to the complexity of some projects and the short amount of time available to learn and master the required techniques for implementation (managerial, operational, etc.), founders would benefit from the use of the financial literacy and management resources available through site-sponsored programs. Funders would also benefit when due diligence measures are taken into consideration.

Organizations from which some content could be tailored for this purpose include, but are not limited to, Small Business Development Centers (SBDCs), the Service Core of Retired Executives (SCORE), and university-funded programs (Young, 2010). In addition, based on interview data, it appears that financial literacy and due diligence processes may be more effective if tied to the social context of CF in which the subjective social values that build trust-based legitimacy regarding participation, performance, and information are reflected.

## **Limitations and Future Research**

As an exploratory, qualitative study, this research has limitations that point to the need for more data and input from the various parties studied: the sites themselves, potential funders, and formal financial institution representatives. With policies involving crowd-based investment platforms scheduled to change in the coming year, it is imperative that values, rationales, information, and processes be better documented for all concerned. Apart from the financial literacy component and social values discussed here, other factors related to the delayed delivery of projects have not been explored. In addition, it has not been determined whether founders who meet obligations on time have characteristics that substitute for the skills/knowledge acquired through the application process of formal institutions.

Future research could analyze other performance criteria of completed projects, determine other meanings of participant success, and determine how social-platform financial literacy programs might work. There is also uncertainty as to whether completed projects meet the quality and design expectations of funders and whether the revenue generated leads to venture sustainability, market creation, and economic growth.

The measurement of socially-based financial literacy will be important as investment opportunities go social on CF platforms. The impact of performance results could change funder motivations from singular internal motivation, formalize new social-group cooperatives, or influence movements in CF "markets."

#### References

- Allison, T., and Townsend, D., (2012), "Wisdom of the crowd? Reputational cascades and emotional contagion in microlender crowdfunding", Paper presented at the Academy of Management Annual Conference, Boston.
- Congress, 112th, (2012), Jumpstart Our Business Startups Act.
- Farrell, J., (2012), "The JOBS Act: What startups and small businesses need to know", Forbes, http://www.forbes.com/sites/work-in-progress/2012/09/21/the-jobs-act-what-startups-and-small-businesses-need-to-know-infographic/.
- Galak, J., Small, D., and Stephens, S., (2011), "Microfinance decision making: A field study of prosocial lending", *Journal of Marketing Research*, Vol. XLVIII, S130–S137.
- Geiger, D., Schulze, T., Seedorf, S., Nickerson, R. and Schader, M., (2011), "Managing the crowd: Towards a taxonomy of crowdsourcing processes", Proceedings of the Seventeenth Americas Conference on Information Systems, Detroit.
- Gorman, M. and Sahlman, W. A., (1989), "What do venture capitalists do?" *Journal of Business Venturing*, Vol. 4, No. 4, pp. 231–248.
- Howe, J., (2006), "The rise of crowdsourcing," Wired, 14:6.

- Hsu, D., (2004), "What do entrepreneurs pay for venture capitalist affiliation?" *The Journal of Finance*.
- Ley, A. and Weaven, S., (2011), "Exploring agency dynamics of crowdfunding in start-up capital financing", *Academy of Entrepreneurship Journal*, Vol. 1 No. 17, pp: 85–110.
- McCormick, H., (2009), "The effectiveness of youth financial education: A review of the literature", Association for Financial Counseling and Planning Education.
- Madsen, T., Woolley, J., Saragee, K., (2012), "Using internet-cased collaboration technologies for innovation: Crowdsourcing vs. expertsourcing", Paper presented at the Academy of Management Annual Conference, Boston.
- Mollick, E., (2012), "The dynamics of crowdfunding: Determinants of success and failure," SSRN Electronic Journal, SSRN-id2088298.
- Pană, N.A. and Simionescu, L., (2011), "The importance of risk management process in ensuring successful implementation of projects entrusted", Revista Academiei Fortelor Terestre, Vol. 1, No. 16, pp: 108–114.
- Prive, T., (2012), "Entrepreneurs what the JOBS Act means for you right now", Venturebeat, http://venturebeat.com/2012/04/24/entrepreneurs-what-the-jobs-act-means-for-you-right-now/.
- "Process of initial public offering (IPO Process)," Finance Maps of World, http://finance.mapsofworld.com/ipo/process.html, Accessed September 7, 2012.
- Smeets, B., Chapin, M. and Kaashoek, B., (2012), "Getting more out of the crowd: How to organize crowdsourcing for innovation", Paper presented at the Academy of Management Annual Conference, Boston.
- Toader, C.S. et al., (2010), "Aspects regarding risk management in projects," *Scientific Papers: Animal Science and Biotechnologies*, Vol. 43, No. 2, pp: 454–457.
- Toader, C.S. et al., (2010), "The main causes which lead to success or failure of a project," *Scientific Papers: Animal Science and Biotechnologies*, Vol. 43, No. 2, pp. 449–453.
- Young, M., Flores, I.B. and Bradley, D., (2010), "Small business assistance: Providing effective production and technical information," *Advances in Production Engineering & Management*, Vol. 5, No. 4, pp: 217–224.