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# The Future of Equity Crowdfunding–
# Is "The Crowd" Capable of Good Investment?

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| **Key words:** | Crowdfunding, Equity Crowdfunding, Venture Finance, Wisdom of the Crowd, Social Influence Effect |
| **Purpose:** | Applying traditional Corporate Finance and Corporate Governance theories, the purpose of this paper is to examine "the crowd's" capability of being a good investor. Additionally, we try to assess the Wisdom of the Crowd and Social Influence Effect among traditional crowdfunders in Sweden. |
| **Methodology:** | A quantitative approach is used to analyze data collected in a survey. The collected data is analyzed by running several probit regressions and chi-square tests. |
| **Theoretical Perspective:** | Information Asymmetry, Agency Theory, Corporate Governance, Wisdom of the Crowd, Social Influence Effect |
| **Empirical Foundation:** | The data consist of 390 complete survey responses by crowdfunders active on the Swedish crowdfunding platform FundedByMe from June 2012 to March 2013. |
| **Conclusions:** | Our main finding is that "the crowd" is highly sophisticated and consist of individuals capable of being good investors. We are also able to show that "the crowd" will act significantly more sophisticated in the situation of equity compared to traditional crowdfunding. Finally, we are not able to show any clear signs of the Social Influence Effect in our study, which gives further support for a sophisticated and "wise" crowd according to the wisdom of the crowd theory. |

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We would like to thank a group of people for helping us make this thesis possible. We would primarily like to thank professor Ola Bengtsson for letting us pick his brain for ideas, for being a great mentor and supporter, and for putting us in contact with many interesting people. We would also like to thank Daniel Daboczy, co-founder of FundedByMe, for helping us on make this thesis a reality. Other dear friends of ours that deserve a mention for their support are Ola Sellert, Alex Esser, Björn Wurmbach and Evan Mast. Thank you.

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# 1. Introduction

Developments of the financial market have proven to be a driving force of economic growth[1]. In recent years equity crowdfunding has emerged as an easy way for informal investors to purchase equity stakes in new ventures over the Internet. In 2011 $1.5 billion dollars were raised on 435 crowdfunding platforms worldwide.[2]

Equity crowdfunding is a widely discussed and highly relevant topic. For entrepreneurs it can be a solution to bridge the often-present financing gap, which is often responsible for hampering new start-ups[3]. However, it remains to be seen whether the equity model will persist or if equity crowdfunding is too exposed to become a stable financing option. Young start-up companies have difficulties obtaining financing because of high information asymmetry, no collateral and negative cash flow[4]. Informal investors are usually the ones investing in risky start-up companies because informal investors require lower rates of return, are more likely to take on higher risks and have longer investment horizons[5]. On the one hand, equity crowdfunding may be a remapping and democratization of the capital market. On the other, equity crowdfunding may be a permanent weakening of investor protection, exposing investors to new problems. The question still remains: Does the crowdfunding model have the potential to become a viable financing alternative for entrepreneurs?

Equity crowdfunding lowers transaction costs and provides a stage for entrepreneurs to exhibit their projects. The aggregate knowledge of the investors (also referred to as the wisdom of the crowd) can be an effective tool in choosing successful projects, possibly even more effective than traditional venture capitalists[6]. This is however not enough to ensure the success of the equity crowdfunding model as agency conflicts and control difficulties still exist. Post investment actions such as governance and contracting and pre-investment actions such as screening are of great importance to overcome these difficulties. We argue that one important condition for a successful future of equity crowdfunding is the sophistication of the crowd, meaning that investor's actions contain common venture capital strategies to mitigate agency conflicts such as screening, monitoring and governance.
To determine if pre investment actions such as screening are sufficient, one can look at the

[1] King, R.G. & Levine, R.,*"Finance and Growth: Schumpeter might be right",* The Quarterly Journal of Economics, August 1993
[2] Crowdsourcing.org, "*Crowdfunding Industry Report - Market Trends, Compositions and Crowdfunding Platforms",* May 2012
[3] Harrison, R. T. & Mason, C. M., "*International Perspective on the Supply on Informal Venture Capital",* Journal of Business Venturing 7, 459-475, 1992
[4] Cosh, A., Cumming, D. & Hughes, A., *"Outside Entrepreneurial Capital*", Economic Journal 119, 1494-1533, 2009
[5] Harrison, R. T. & Mason, C. M., "*International Perspective on the Supply on Informal Venture Capital"*
[6] Surowiecki, J.,*"The Wisdom of Crowds"* (Anchor Books: New York, 2004), 4-5

success factors of particular projects. However, the practical problem of this approach lies in the difficulty of correctly measuring and comparing success between different types of projects. Another, more practical approach is to conduct an in-depth survey and study the actions taken by the crowd before and after funding a project. We have conducted just such a survey with the objective to analyze pre and post investment actions of the crowd. The data consists of 390 survey responses from crowdfunders that have made investments through Sweden's first online crowdfunding platform, FundedByMe.

The survey includes questions of demographic and personality type in an effort to determine the sophistication of the crowd. Additionally, we ask about their experience of traditional crowdfunding and how they would react if offered an equity stake in a project. The data is highly detailed although it is limited to those who have crowdfunded via FundedByMe. This limits the ability of our findings to be generalized, but we believe our sample is in some ways representative of other crowdfunders, both nationally and internationally. Another limitation of our study is that it soley consists of traditional crowdfunders responses to hypothetical equity crowdfunding scenarios because, at the time of our study, the sample of equity crowdfunders was too small for a quantitative analysis. Therefore, we assume that the existing crowd of traditional crowdfunders shares many similarities with the potential crowd of equity crowdfunders.

To our knowledge, no previous empirical studies of equity crowdfunding in Sweden have been realized, and few studies on the subject have been carried out internationally. We aim to establish whether or not "the crowd" is capable of smart investment in order to estimate the future chance of success for the equity crowdfunding model. A secondary purpose of this paper is to contribute insights to promote the development of the equity crowdfunding model.

Our analysis is based on three theories of investment, the first of which concerns information asymmetry. According to theory, information asymmetry leads to adverse selection, free riding and moral hazard[7]. Secondly is the principal-agent theory, which explains the effect of differing incentives of the entrepreneur (agent) and the investor (principal)[8]. Thirdly, the traditional corporate governance theory proposes actions such as screening and monitoring to mitigate these control problems[9]. Because "the crowd" is exposed to control difficulties and asymmetric information, rationality suggests that equity crowdfunding works only if "the crowd" takes similar actions to mitigate these problems. Additionally, the wisdom of the crowd effect claims that as long as "the crowd" is diverse enough it will act smarter as a collective

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[7] Akerlof, G.A.,"*The Market for Lemmons": Quality Uncertainty and the Market Mechanism",* The Quarterly Journal of Economics, Vol. 84, No. 3 pp. 488-500, Oxford University Press, August 1970
[8] Eisenhardt, K. M.,*"Agency Theory: An Assessment and a Review",* The Academy of Management Review, Vol. 14, No. 1 pp. 57-74, January 1989
[9] Kaplan, S.N. & Strömberg P., *"Venture Capitalists as Principals: Contracting, Screening, and Monitoring",* Graduate School of Business, University of Chicago, Vol. 91 NO.2, 2011

than as individuals[10]. However, this effect only works as long as "the crowd" is not subjected to the social influence effect, which narrows the diversity of opinion and therefore reduces the wisdom of the crowd as a whole[11]. Therefore, a crowd capable of good investment consists of sophisticated investors and of investors not adversely affected by the social influence effect. We aim to answer three questions:

I. How sophisticated are the people in "the crowd"?
II. Does "the crowd" act sophisticated in traditional crowdfunding?
III. Will "the crowd" act *more* sophisticated in equity crowdfunding?

If one believes in the potential success of the crowdfunding model one would expect a crowd of sophisticated people, a sophisticated investment process, and that expert are more active than non-experts. According to our study this is not particularly true in traditional crowdfunding but tends to be more true in equity crowdfunding. In order for equity crowd funding to be a viable model, not only does "the crowd" need to act sophisticated but crowdfunding platforms also need to provide more company information in order to facilitate pre investment actions. Another concern is the problem of free riding and weak investor protection, which can be mitigated by limiting the number of investors and maintaining strong, enforceable contracts.[12]

Our study contributes with new insights about the characteristics of "the crowd" that did not exist in prior crowdfunding literature. It is the first study of equity crowdfunding in Sweden from a finance perspective and contributes information about necessary conditions for the success of the equity crowdfunding model.

This paper is structured as follows: Section two provides an introduction and overview of the crowdfunding phenomenon and puts traditional and equity crowdfunding in the context of other entrepreneurial finance alternatives. We also review challenging and supporting theories and provide a theoretical background to our hypothesis development. Section three explains our methodology, and in section four we review our research results. In section five we discuss those results, in section six we give some concluding remarks and, finally, in section seven we give some suggestions for future research.

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[10] Surowiecki, J.,*"The Wisdom of Crowds"* (Anchor Books: New York, 2004), 1-4
[11] Lorenz, J., Rauhut, H., Schweitzer, F. & Helbing, D., *"How social influence can undermine the wisdom of the crowd effect",* University of Florida, Gainesville, FL, April 13, 2011
[12] Pasour, Jr., E.C.,*"The Free Rider as a Basis for Government Intervention",* North Carolina State University, The Journal of Libertarian Studies, Vol. V, No. 4, 1981

# 2. Theoretical Framework

## 2.1 Crowdfunding Overview

### *2.1.1 Traditional Crowdfunding*

The definition of crowdfunding by the Oxford University dictionary is:

> *"The practice of funding a project or venture by raising many small amounts of money from a large number of people, typically via the Internet."*[13]

There are two types of crowdfunding: *Traditional Crowdfunding* (also called classic crowdfunding) and *Equity Crowdfunding*. Traditional crowdfunding includes lending based, donation based, and reward based crowdfunding. The two categories differ in only one aspect: what the funder receives in return for funding a project. For traditional crowdfunding it can be anything from a simple letter of gratitude to a reward item, but in equity crowdfunding, the investor receives an equity stake in the project. Traditional crowdfunding works best for projects that easily arouse and engage people, such as projects dealing with environmental issues, human rights and personal believes. The total number of crowdfunding platforms is on the rise and by the end of 2012 there were 452 crowdfunding platforms in the world that together helped raise over $1.5 billion in 2011.[14]

It is easy to understand the widespread use and popularity of crowdfunding. With little effort, anyone in need of finance can reach out to a crowd of possible financiers while not having to give up control rights. For instance, a film maker utilizing crowdfunding can retain control of casting decisions and the film's final cut[15]. Crowdfunding is also frequently used to raise money for charity, art projects, and political campaigns. In the year 2010, 65.000 people helped raise $3.000.000 to support 4 000 artists from a crowdfunding platform called Sellaband.[16] By turning to "the crowd", entrepreneurs and artists are able to retain their entrepreneurial and artistic freedom. Crowdfunding allows them to pursue their vision without the meddling of private investors or financial intermediates. It is a fast and easy way to overcome the hindrance of geographical distance between entrepreneurs and financiers and is an opportunity for anyone, anywhere seeking monetary support for a new venture or idea.[17]

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[13] Oxford Dictionaries, *"Crowdfunding"*, www.oxforddictionaries.com, 2013

[14] Crowdsourcing.org, "*Crowdfunding Industry Report - Market Trends, Compositions and Crowdfunding Platforms"*, www.crowdsourcing.org, May 2012

[15] Crowdsourcing.org, "*Zack Braff's Crowdfunded film passes $1Million Mark"*, www.crowdsourcing.org, April 24, 2013

[16] Schwienbacher, A. & Larralde, B., "*Crowdfunding of Small Entrepreneurial Ventures"*, 2010, (working paper)

[17] Crowdsourcing.org, "*Zack Braff's Crowdfunded film passes $1Million Mark"*, www.crowdsourcing.org, April 24, 2013

In an article by Ethan Mollick, who analysed the determinants of success and failures in crowdfunding, he states that most successfully funded entrepreneurs delivered their goods with an average delay of one month. In spite on this fact, "the crowd" seemed overall to be good at picking entrepreneurs who try to fulfill their commitment to “the crowd”.[18] In other words, today’s limited research of crowdfunding show the traditional crowdfunding model is effective, with only minor flaws.

### *2.1.2 Equity Crowdfunding*

In 2006 traditional crowdfunding developed into equity crowdfunding and a new type of crowdfunding emerged[19]. This is the definition of equity crowdfunding according to an article by Ahlers et al.:

> “*Equity crowdfunding is a method of financing whereby an entrepreneur sells equity or equity-like shares in a company to a group of (small) investors through an open call for funding on Internet-based platforms”*[20]

Equity crowdfunding emerged because of a need for entrepreneurial finance. Entrepreneurship is frequently discussed topic today because of the belief that an increased amount of entrepreneurial activity will lead to higher economic growth and further development of societies[21]. The development and successfulness of the equity crowdfunding model is therefore important from a governmental point of view, which in part accounts for the model’s on-going development.

In Sweden, equity crowdfunding began in April 2011 with a platform called FundedByMe[22]. Crowdfunding platforms profit by charging a transaction fee, which is a percentage taken out of the funds a project raises. The percentage ranges from 2-25 % and is based on a calculation of total funds raised.[23] Because equity crowdfunding is new in Sweden, one would have to look to foreign equity crowdfunding sites for statistics. Crowdcube, a British equity crowdfunding platform, reports the average number of investors per project to be 66, and the average investment per investor to be $3.000. Since their start in 2011, Crowdcube has closed

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[18] Mollick, E., “*The Dynamics of Crowdfunding: Determinants of Success and Failures*”, The Wharton School of the University of Pennsylvania, 2012, (working paper)
[19] FundedByMe,”*Frequently Asked Questions*”, www.fundedbyme.com, February 2011
[20] Ahlers, K.C.G, Cumming, D., Günter, C. & Schweizer, D., *”Signaling in Equity Crowdfunding”*, 2012, (working paper)
[21] Larroulet, C. & Couyoumdjian, J.P., “*Entrepreneurship and Growth – A Latin American Paradox?”,* The Independent Review, 2009
[22] allabolag.se, ”*FundedByMe Crowdfunding Sweden Aktiebolag*”, www.allabolag.se, April 22, 2013
[23] Crowdsourcing.org, “*Crowdfunding Industry Report - Market Trends, Compositions and Crowdfunding Platforms”,* May 2012

44 equity rounds, raising $10 million in total.[24]

Traditionally in Sweden companies are only allowed to issue equity through the stock market but the Swedish Companies Act includes a loophole that allows equity crowdfunding platforms to operate legally. The law enables entrepreneurs to receive funding by issuing equity on crowdfunding platforms without going public on the stock market. The legal constraint for issuing equity via Internet in Sweden lies at a maximum number of 200 investors or 200 shares per project and that investors are obligated to report an interest during a pre investment round.[25] According to the Swedish Companies Act (2005:812)[26]:

> "*A private company or a shareholder in such a company may not, through advertising, attempt to sell shares or subscription rights in the company or debentures or warrants issued by the company.*"

It further states,

> "*The aforesaid shall not, however, apply where the offer is directed solely to a group of persons who have previously given notice of interest in such offers and where no more than 200 trading units are offered.*"

This is important, because what enables equity crowdfunding to operate legally in Sweden is that investors first have to report an interest to invest during a "pre round". The entrepreneur then selects and invites investors to participate in the "open round". It is not until the "open round" stage that the reported interest is turned into a real transfer of cash in return for an equity stake in the company. FundedByMe does not handle any contracts and only exists to provide a market place for investors and entrepreneurs to meet[27]. All contracts between the investor and entrepreneur are handled outside the platform. FundedByMe is therefore protected from all legal responsibility in the contract between the entrepreneur and the investors.

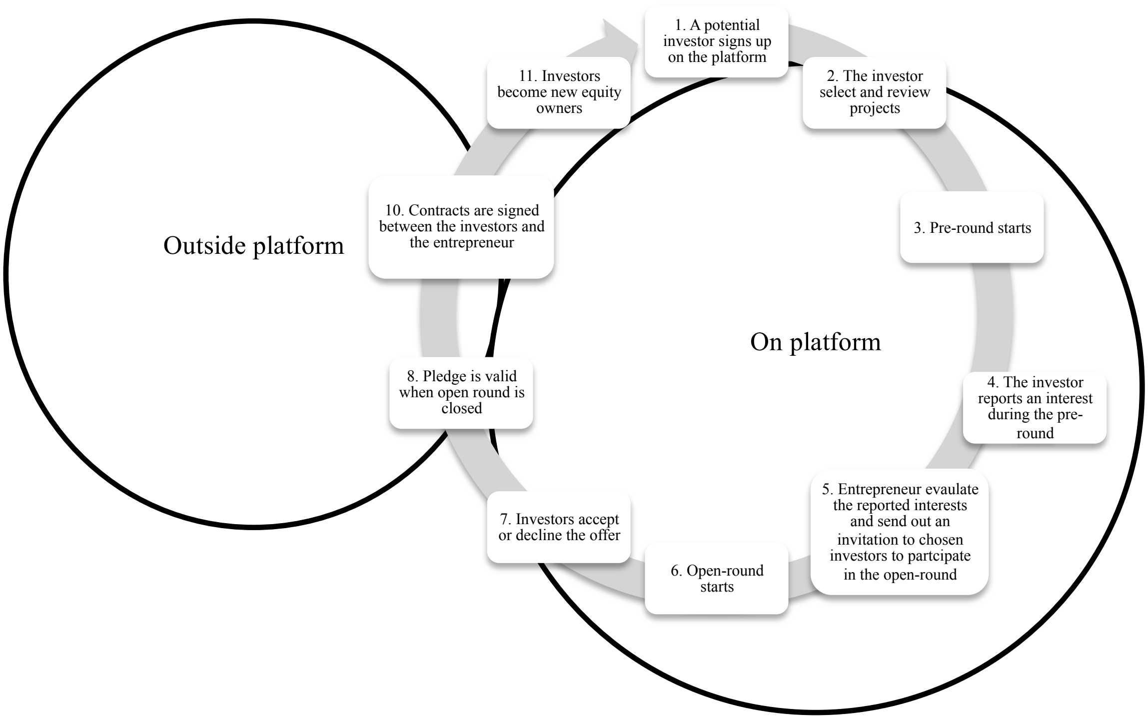
The process from an investor's perspective engaged in equity crowdfunding in Sweden begins with the person visiting the website and reviewing a wide selection of companies and projects to invest in. Typically, the information available is limited and only regards the business concept as a whole. It may include a company overview, basic team and company information, and a collection of documents, such as a shareholder's agreement.[28] However, much pertinent information is missing. Investors typically lack access to a cash flow analysis, cost estimates,

[24] Tysklind, J., Co-founder of Crowdcube Sweden, (Crowdfunding seminar), Malmo, May 16, 2013
[25] Lagen.nu,"*Aktiebolagslag",* www.lagen.nu, 2005
[26] FundedByMe,"*Frequently Asked Questions*", www.fundedbyme.com, February 2011
[27] Ibid
[28] Ibid

competitor analysis, a valuation of any kind, and there is no information about potential risks to the company or project.

By reporting an interest to invest during a so-called "pre-round", the investor complies with the Swedish Companies Act. The entrepreneur then selects and reviews all potential investors and chooses to reject those that he or she does not see fit, a decision which is based on the amount of the reported interest. Once the project owner has selected the investors, they receive an invitation to participate in the open-round to invest at a pre-specified company value based on the reported interest. Interested investors report a further interest by signing a letter of intent with a digital signature. The investors have to sign this contract and wait until the round is closed for the investment pledge to be valid.[29]

Figure 2.1.2: Equity crowdfunding process - FundedByMe




Meanwhile equity crowdfunding is also developing in other parts of the world. In April of 2012 President Obama signed the JOBS Act (Jumpstart Our Business Start-ups act), which allows the use of crowdfunding to raise equity for new startups in the United States. The aim of the act was foremost to create new jobs in the struggling economy and address the number of declining IPOs, but also to provide an additional tool for entrepreneurs to bypass banks and other financial institutions.[30]

[29] FundedByMe,"*Frequently Asked Questions*", www.fundedbyme.com, February 2011
[30] The Economist,*"Uncuffing capitalism*", The Economist, March 31, 2012

The issue whether the loophole enabling equity crowdfunding to operate legally in Sweden is a reduction of investor protection is not widely debated domestically but has been a concern to those who take a stand against the passing of the JOBS Act in the United States. The Securities Act of 1933 and 1934 made it illegal for companies to offer shares to the public without registering a public offering with the Securities Exchange Commission (SEC). The purpose was to protect investors from investing in illegitimate companies, a protection which does not exists under equity crowdfunding.[31] Thus, the responsibility rests on the shoulders of "the crowd" who may or may not consist of people capable of good investment. In contrast, those in favour of the JOBS Act argue that firms spend more time complying with regulation than developing new products[32]. From this perspective equity crowdfunding is a powerful tool of lowering the overall financing transaction costs.

The crowdfunding industry report is the first comprehensive report on the global crowdfunding industry. The report is provided by Massolution™ and is based on a crowdfunding industry survey, which was conducted in the first quarter of 2012. According to the crowdfunding industry report the reward-based crowdfunding industry is considered to be the largest while the equity-based industry is the fastest growing sector. The growth of equity crowdfunding in 2012 was 114%. The growth was mainly driven by the passing of the JOBS Act in the United States and by the increased number crowdfunding platforms in Europe.[33] By April of 2012 there were 39 crowdfunding platforms offering equity crowdfunding to the world. In 2011, the total crowdfunding volume reached $88 million dollars, 93 % of which were raised on platforms in Ireland, Australia, France and the UK. As the design of equity crowdfunding platforms is dependent on the security regulations in each country the designs and business models each platform varies.[34]

### *2.1.3 Equity Crowdfunding in an Entrepreneurial Finance Context*

The process of developing a venture is typically divided into eight stages: seed-stage, start-up, early development, expansion, profitable or cash poor, rapid growth, bridge and finally the harvest stage. The most common financing alternatives for entrepreneurs in the start-up or early development phase are: business angels, venture capital firms or government funding.[35]

While equity crowdfunding is about seeking smaller amounts of external capital from many

[31] Best, J., Neiss, S., Stralser, S. & L. Fleming., "*How Big Will the Debt and Equity Crowdfunding Investment Market Be? Comparisons, Assumptions, and Estimates",* University of California, Berkeley, January, 2013
[32] The Economist,*"Uncuffing capitalism*", The Economist, March 31, 2012
[33] Crowdsourcing.org, "*Crowdfunding Industry Report - Market Trends, Compositions and Crowdfunding Platforms",* May 2012
[34] Ahlers, K.C.G, et al., *"Signaling in Equity Crowdfunding*, 2012, (working paper)
[35] Ogden, J.P. & O'Conner, P.F., *"Advanced Corpoprate Finance, Policies and Strategies"* (New Jersey: Prentice Hall, 2003), 361

small investors, venture finance is about raising larger amounts of capital from relatively few investors[36]. Young, high growth start-up companies lacking assets or profits usually seek financing from venture capital firms or business angels but venture or angel financing is not widely available and rejections are very common[37].

According to research, venture capital firms are more efficient, have larger networks and also perform more intense pre-investment screening than business angels. When it comes to monitoring actions during the entrepreneurial process, business angels show more interest, but when it comes to designing the contracts, venture capital firms are more controlling. In conclusion, business angels often invest with the motivation of becoming actively for the satisfaction of giving back to the entrepreneurial community, whereas venture capital firms invest primarily to earn a steady return. Another difference is the relative size of a business angel's investment, which is on average smaller than investments made by venture capital firms.[38]

The market for individual equity investments into private companies is large but has few participants. Comparing venture capital investment to business angels, angels are harder to find but are less expensive and less time consuming.[39] By providing a market place for high risk financing in early-stage companies, seed capital becomes more available to entrepreneurs that are no longer limited by the entrepreneurs' network. Equity crowdfunding is believed to increase the number of business angel investors in the United States from 60,000 to 6 million, making it substantially easier for entrepreneurs to raise seed capital[40]. The cost of participating in the equity crowdfunding market is also lower, measured both in time and money. Crowdfunding has the potential to curb high participation costs by enabling more people to participate in the market more easily and at lower cost. According to a private equity investor, by allowing companies to raise money more efficiently, crowdfunding will save the entrepreneur's most valuable resource: time, thereby allowing them to spend more of it on the project rather than pursuing investment.[41] However, having many small equity holders can be a burden as for a business having to give on-going information about their project, processing feedback and drawing up contracts. This can have the opposite effect and interfere with the

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[36] Belleflamme, P., Lambert, T. & Schweinbacher, A., *"Crowdfunding: Tapping the Right Crowd",* 2012, (working paper)
[37] Cosh, A., Cumming D. & Hughes, A., *"Outside Entrepreneurial Capital*"
[38] Osnabrugge, V. M.*"A comparison of business angel and venture capitalist investment procedures: An agency theory-based analysis, Venture Capital",* International Journal of Entrepreneurial Finance, 2:2, 91-109, 2000
[39] Freear, J., Sohl, J.E. & Wetzel, W.E., "Angels: Personal Investors in the Venture Capital Market", Entrepreneurship and Regional Development: An International Journal Vol. 7, Issue 1, 1995
[40] Paolini, G., "SEC Stalls Equity Crowdfunding… Again", Columbia Business Law Review, 2013
[41] Calbeck, R., "*The Disruptive Power of Equity Crowdfunding"*, Forbes, January 13, 2013

entrepreneur's daily management of their business.[42]

Another drawback of having many small investors instead of a few large investors is the lack of support and strategic advice, something venture capitalist or business angels often contribute. It is often highly valuable for start-up companies to have access to the competence of business angels or venture capitalists for strategic advice, mentorship, and access to a larger network.[43] Equity crowdfunding is also believed to be associated with low liquidity and few exit opportunities. Nelson Gray, a British business angel, believes equity crowdfunding investors run a risk of being "locked in" and not finding an investor that is willing to buy out "the crowd". One proposed reason is the administrative burden of organizing a buyout from a large group of shareholders. In the UK, another issue is that under UK tax law there is no tax relief from purchasing already existing shares.[44] Equity crowdfunding investors will likely view the difficulties of exiting a deal as a barrier to entering the market. Additionally, if the entrepreneurs in a latter stage want to receive more finance from a venture capital firm or business angel potential ownership conflicts could arise. According to a Swedish venture capitalist, venture capital firms are less interested in investing in a project with many existing owners because of the increased risk of conflict.[45]

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[42] Heander, P., Venture Capitalist; ALMI, (Crowdfunding seminar), Malmo, May 16, 2013
[43] Casamatta, C., " *Financing and Advising: Optimal Financial Contracts with Venture Capitalists",* The Journal of Finance, Vol. LVIII, No 5, October 2003
[44] Nelson, G.,*"Equity Crowdfunding – Thanks, But No*", www.nelsongray.com, January 2013
[45] Heander, P., Venture Capitalist; ALMI, (Crowdfunding seminar), Malmo, May 16, 2013

## 2.2 Theoretical Support and Challenges

### *2.2.1 Moral Hazard, Adverse Selection and Free Rider Problem*

On a typical equity crowdfunding platform, the amount of information available to investors is limited. Compared to the stock market or in venture capital negotiations, entrepreneurs are less regulated to disclose information. Additionally, equity crowdfunding platforms are believed to attract relatively unsophisticated investors incapable of evaluating information appropriately when compared to venture capitalists.[46] The lack of an informative competitive analysis or disclosure of potential dilution in the near or distant future will make it extremely difficult for any crowd, wise or unwise, to correctly value or determine the potential successfulness of a project. A further problem for "the crowd" is to validate the reliability of the given information.

Because of the amount of asymmetric information on equity crowdfunding platforms, "the crowd" is subjected to several moral hazard problems. In an article by Paul Krugman moral hazard is defined as:

> *"Any situation in which one person makes the decision about how much risk to take, while someone else bears the cost if things go badly."*[47]

The leading moral hazard is the risk of unscrupulous entrepreneurs taking advantage of the disperse crowd and filing for bankruptcy soon after receiving funding or allocating funds for other purposes other than the project. This risk is particularly high if the platform is open to anyone without background checks. Another potential moral hazard occurs if entrepreneurs value the equity inaccurately. In other types of seed-stage financing, the investors are fewer and have access to more information than what is available to "the crowd" on an equity crowdfunding platform. In the situation of a venture capitalist or business angel negotiation, the investors can make their own valuation to put in contrast to the entrepreneur's valuation. With equity crowdfunding, the investors have less of an opportunity to price the company and thus have to rely on the price offered by the entrepreneur.

A third potential moral hazard lies in risk tolerance differences between entrepreneur and investor. Because the entrepreneur is less governed and monitored than in a typical investment relationship, they may take on more risk than "the crowd" is willing to pay for. This risk is higher in crowdfunding because "the crowd" has less incentive to actively govern and monitor

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[46] Schwienbacher, A. & Larralde, B., *"Crowdfunding of Small Entrepreneurial Ventures"*
[47] Krugman, P., *"The Return of Depression Economics and the Crisis of 2008"* (New York City: W.W Norton & Company, 2009), 63

the entrepreneur. According to Mancur Olson there exists a faulty assumption that a group of people with a shared common interest will act towards realizing that interest based on the premise that they are rational, self-serving and utility maximizing individuals[48]. The group of equity crowdfunding investors may share a common interest in monitoring and governing the entrepreneur, but may lack the incentives to do so because no individual investor is prepared to bare the costs of monitoring and governance. The root of this problem, also is referred to as the free rider problem, is that monitoring and governance is a non-excludable part of this process or a “public good”.[49]

Another problem stemming from asymmetric information is that of adverse selection. Any individual is allowed to offer equity stakes on an equity crowdfunding platform with little or no screening conducted by the platforms. Therefore, equity crowdfunding investors may be exposed to an adverse selection of projects. In his classic paper on adverse selection George Akerlof describes the “bad lemons” problem as an instance where high information asymmetry pushes high quality projects out of the market to the extent that only low quality projects, or “bad lemons” are left.[50] If the entrepreneur is unable to effectively signal the quality of their project and "the crowd" is therefore unable to discern between high and low quality, high quality entrepreneurs will abandon the market because “the crowd” is unwilling to give the entrepreneurs a fair price for a share of the company. While the apparent solution to this problem is that crowdfunding platforms provide an initial screening of projects, many crowdfunding business models merely function as a market place, and do therefore not take any responsibility for controlling the quality of projects. If these problems are not addressed, according to Akerlof’s bad lemon theory, the market of high quality projects on a crowdfunding platform will be depleted.[51]

Lowering the level of asymmetric information would help reduce all of the above-mentioned problems[52]. In the case of equity crowdfunding the level of asymmetric information is, among other factors, dependent on the actions of the crowd. If the crowd screens and monitors projects or if platforms provide entrepreneurs with ways to effectively signal the quality of the project, the level of asymmetric information could be reduced, and the effects of adverse selection and moral hazard on the market lessened. This would in turn lead a more promising future for the equity crowdfunding model.

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[48] Olson M., *“The Logic of Collective Action Public Goods and The Theory of Groups”* (Harvard University Press: United States, 1971 [1965]), 9-16
[49] Pasour, Jr. E.C.,*“The Free Rider as a Basis for Government Intervention”*
[50] Akerlof, G.A.,*”The Market for Lemmons": Quality Uncertainty and the Market Mechanism”*
[51] Ibid
[52] Ibid

### *2.2.2 Principal - Agency Conflicts*

According to theory, there are two agency conflicts within a typical firm: one between the owners and the manager and one between the owners and the debt holders. Principal-agency conflicts become apparent when the incentives of the agent and the principal differ and when the principal is unable to control the agent. A related principal agent conflict is when the principal and agent have different attitudes towards risk.[53]

The problem of principal agent conflicts in equity crowdfunding is evident in that it is difficult for the entrepreneur to control the amount of funding that they are given by "the crowd". Often the amount of funding received is more or less than expected[54]. If an entrepreneur receives more funds than asked for, it may lower incentives to work effectively and could lead to waste or overly risky business decisions[55].

Venture capitalists and business angels specialize in young, early-phase and high-risk companies and invest in return for equity stakes. The investment horizon is typically very long and the equity stake highly illiquid, which makes it comparable to equity crowdfunding.[56] In an article by Kaplan & Strömberg they present evidence that shows the most commonly used actions by venture capitalists to mitigate principal-agent conflicts are sophisticated contracting, pre investment screening and post investment monitoring and advising. Before a deal is completed the venture capitalists screen the projects by examining the business plan, liquidity and try to assess the overall future performance of the project by performing due diligence. In addition to keeping a short leash on the entrepreneur, it is also important for venture capitalists to have strong, enforceable contracts to protect their investment. Finally, a way for venture capitalists to increase the chances of success is to actively get involved in the project by monitoring, governing or in other ways assisting in the project.[57]

If we apply these assumptions to equity crowdfunding the investor has three possible actions to restrict the entrepreneur from taking actions that are not in line with the interest of the investor. The first action is to create a strong, enforceable contract between the investor and the entrepreneur. The possibility for an equity crowdfunding investor to effectively secure their investment may vary since it rests on the legal expertise they consult after the completion of an investment round[58]. However, according to Ola Sellert, a legal expert with special knowledge

[53] Eisenhardt, K. M.,*"Agency Theory: An Assessment and a Review"*
[54] Collins, L. & Pierrakis, Y., "*The Venture Crowd Report, Crowdfundig Equity, Investment Into Business",* Nesta, www.nesta.org.uk, July 2012
[55] Eisenhardt, K. M.,*"Agency Theory: An Assessment and a Review"*
[56] Ogden, J.P. & O'Conner, P.F.*"Advanced Corpoprate Finance, Policies and Strategies"* (New Jersey: Prentice Hall, 2003), 365
[57] Klonowski, D.,*"The Venture Capital Investment Process"* (New York City: Palgrave Macmillan, 2010), 25-41
[58] FundedByMe,"*Frequently Asked Questions*", www.fundedbyme.com, February 2011

about Swedish liquidation rights, a standard equity crowdfunding shareholders agreement lacks sufficient investor protection. Minority rights, intellectual property rights, exit opportunities and voting rights are only vaguely discussed or not discussed at all.[59] Because venture capitalists have more money than time to invest in a particular project and spend a significant amount of time evaluating and screening before investing it is clear that screening is considered to be a valuable action to mitigate principal agent conflicts[60]. The second action, pre-investment screening, is limited by the information provided by the entrepreneur. The third action, monitoring and governing the project can also be limited by size of "the crowd" due to free riding[61]. These incapabilities of monitoring and controlling the entrepreneur contribute to the overall riskiness of equity crowdfunding.

The future of the equity crowdfunding model is partially dependent on the existence of economic incentives to screen and monitor project initiators. Because the invested amounts are relatively smaller in crowdfunding compared to other sources of seed capital, crowdfunding is naturally exposed to control difficulties and principal-agent problems[62].

### *2.2.3 Wisdom of the Crowd vs. Social Influence Effect*

There has been a great deal of research on the subject of “the power of the few versus the wisdom of the crowd”, as put in one article by Kittur et al.[63]. The "wisdom of the crowd effect" applies when a group’s accumulated knowledge is as good or in some cases even greater than the knowledge of individuals within the same group, assuming that the opinions within the crowd are sufficiently diverse[64]. This effect can be seen in the stock market, quiz shows and political elections[65]. The wisdom of the crowd effect could mean a large crowd of investors is better at picking successful projects than a smaller group of informal investors.

Contrary to the popular theory of the wisdom of the crowd is the “social influence effect” that is said to have a negative impact on the wisdom of the crowd. Previous scientific experiments have shown individuals influence each other’s decisions on which books, music and movies to buy[66]. Lorentz et al. have shown the influence of others, or herding behavior, narrows the

[59] Sellert, O., Trustee, (Official) Receiver, Discussion on equity crowdfunding investor protection, May 13, 2013
[60] Kaplan, S.N. & Strömberg, P., *“Venture Capitalists as Principals: Contracting, Screening, and Monitoring”*
[61] Pasour, Jr. E.C.,*“The Free Rider as a Basis for Government Intervention”*
[62] Tysklind, J., Co-founder of Crowdcube Sweden, (Crowdfunding seminar), Malmo, May 16, 2013
[63] Kittur, A., Pendleton Bongwon Suh, E.C.B. & Mytkowicz T., *”Power of the Few vs. Wisdom of the Crowd: Wikipedia and the Rise of the Bourgeoisie”,* www.chi2013.acm.org, 2007
[64] Surowiecki, J.,*”The Wisdom of Crowds”* (Anchor Books: New York, 2004), 4-5
[65] Lorenz, J., Rauhut, H., Schweitzer, F. & Helbing, D., *“How social influence can undermine the wisdom of the crowd effect”*
[66] Salganik, M.J. & Watts, D.J., *”Leading the Herd Astray: An Experimental Study of Self-fulfilling Prophecies in an Artificial Cultural Market”, Social Psychology Quarterly,* 71: 338, American

diversity of opinions and thereby reduce the wisdom of the crowd as a whole[67]. This theory relates to crowdfunding where the social network of the entrepreneur has proven to be one of the most critical success factors of successfully funded projects. In other words, the size of the entrepreneur's social network, for example measured in number of Facebook friends, has shown to be equally important as the underlying quality of the project.[68]

Applying the wisdom of the crowd theory to equity crowdfunding, a disperse crowd may be better than traditional venture capitalists at picking successful projects. However, if members of "the crowd" take other members investment decisions into consideration and are under the impression that they are more knowledgeable, "the crowd" may be exposed to the social influence effect, also referred to as herd behavior[69].

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Sociology Association, 2008

[67] Lorenz, J., Rauhut, H., Schweitzer, F. & Helbing, D., *"How social influence can undermine the wisdom of the crowd effect"*

[68] Mollick, E., "*The Dynamics of Crowdfunding: Determinants of Success and Failures*"

[69] Salganik M.J. & Watts, D.J., *"Leading the Herd Astray: An Experimental Study of Self-fulfilling Prophecies in an Artificial Cultural Market"*

## 2.3 Hypothesis Development

### *2.3.1 Can "The Crowd" do it as well or even better?*

In this paper we aim to describe "the crowd" and to determine whether it takes the same actions as a traditional venture capitalist before and after investing in a project in order to minimize agency conflicts. Inspired by a large number of research papers on the most common agency conflicts in seed-stage finance and the most commonly used methods to overcome these difficulties, we will investigate whether these methods will be used by a potential crowd of equity crowdfunding investors, an issue which has much bearing on whether there is a future for the equity crowdfunding model.

Our first research question is whether "the crowd" consists of sophisticated people. Our second research question is whether the crowd *acts* as sophisticated investors (if "the crowd" screens, monitors or governs projects) in *traditional* crowdfunding. If they do "the crowd" of traditional crowdfunding investors may generally be capable of good investment. Our third research question is: Would "the crowd" screen or monitor *more* if offered an equity stake in the project? If not, "the crowd" may be exposed to an adverse selection of projects. In this case the equity crowdfunding model has a lesser chance of survival.

### *2.3.2 Social Influence and Wisdom of the Crowd Effect – FundedByMe*

We attempted to measure the social influence and "wisdom of the crowd effect" by asking "the crowd" how much their decision to invest in the project was affected by the investment decisions of others. Additionally, we asked if they believed themselves to be less or more knowledgeable about the project compared to other investors. If they do not believe other investors to be more knowledgeable about the project and do not infer the quality of the project from the number of investors investing before them, "the crowd" may not be subjected to the social influence effect and can therefore be considered capable of good investment.

# 3. Data and Empirical Strategy

## 3.1 Research Approach

We chose a quantitative, cross-sectional study methodology to capture the variability among traditional crowdfunders in Sweden. According to Backman a quantitative method is used when the observations are numerical or can be transformed to numerical observations[70]. A benefit of this methodology is that we are able to examine the crowdfunding phenomenon at a specific point in time. Our research approach is deductive since we formulate hypothesis based on existing literature and then use empirical results to confirm or reject our hypothesis.[71]

## 3.2 Survey Process

In order to gather information about the characteristics, pre and post investment actions of the crowd we constructed a survey based on traditional corporate governance theories and established survey design literature[72]. Consisting of 30 multiple-choice questions, the aim of the survey was to collect four types of information: 1) demographic description of "the crowd", 2) previous experiences of traditional crowdfunding, 3) openness to and actions in the case of equity crowdfunding and last but not least 4) optimism, risk-taking, level of trust and numeracy of the crowd.

More specifically, the first section covers demographic variables such as age, sex, and educational background. The second part covers "the crowd's" experience with traditional crowdfunding. We asked about their main motives, if they felt satisfied afterwards and if they have expertise or previous experience from the same field as the project they invested in. We also asked a series of questions regarding the actions they took before and after investing in a project to determine whether the crowd screened or monitored project initiators. To determine whether the crowd is subjected to social influence we added two questions about how many had funded before them and if they were under the impression that the others were more knowledgeable than themselves. In the third part we asked about how they would think and react if offered an equity stake in a project. We also asked questions to determine if they would screen or monitor more as project owners than as traditional funders as in traditional crowdfunding. At the end of part two we provided an introduction to part three explaining

70 Backman, J., *"Rapporter och uppsatser"* (Lund: Studentlitteratur, 2008), 33
71 Bryman, A., & Bell, E., *"Företagsekonomiska forskningsmetoder"* (Oxford: Oxford University Press, 2003), 23
72 Dahmström, K., *"Från datainsamling till rapport"* (Lund: Studentlitteratur, 2005), 123-145

what "equity" is and asked the respondent to imagine him or herself engaging in equity crowdfunding. The final part is a series of questions concerning levels of trust, risk attitude and problem solving ability to test how trusting, risk-taking and clever the crowd is. The personality type questions were taken from the appendix of a published article with the aim of determining if women have a less entrepreneurial personality[73]. We formulated the remaining questions in collaboration with our supervisor and a professor in statistics.

## 3.3 Sample Description and Definition of Variables

We have two different sources of data. FundedByMe provided us with a log of traditional crowdfunders, containing information about funded amounts. Our other source of data is our survey. The survey was sent out by email to 2931 traditional crowdfunders who visited the same crowdfunding platform in the period of June 2012 to March 2013 to fund projects. In the introduction to the email we explained the purpose of our research and stated that all individual responses would be kept anonymous and only reported in aggregated form. The data was collected over a two-week period. Our survey sample consists of 390 complete survey responses, which were collected using an Internet based survey tool called Survey Monkey[74]. The response rate was 13.3 % and the result from our demographic questions show that the majority of the survey respondents are males with an average age of 38 years.

Table 3.3.1 Descriptive Statistics of Participants

| Category | (% of participants) |
|---|---|
| Male | 62 |
| Age | |
| 20 and younger | 1.8 |
| 21 to 30 | 23.9 |
| 31 to 40 | 36.8 |
| 41 to 50 | 17.9 |
| 50 and over | 19.5 |
| Funded more than one time | 6.4 |

To take advantage of the benefits of using a quantitative method we transformed the collected survey data into numerical observations by creating new dichotomous variables of all survey responses. A drawback of transforming all data into dummy variables is that relevant information might be lost. However, we chose this method to facilitate interpretation of the estimated coefficients. Additionally, we merged questions that were designed to capture the same type of information. For instance, we merged two questions designed to capture

[73] Bengtsson, O., Sanandaji, T. & Johannesson, M., *"Do Women have less of a Entrepreneurial Personality?",* October 3, 2012, (Working paper)
[74] Survey Monkey, www.surveymonkey.com, 2013

numeracy of the crowd into one dummy variable. We repeated the process with questions regarding expertise, monitoring, trust and questions designed to imply social influence.
To test our hypothesis:

I. How sophisticated are the people in "the crowd"?
II. Does "the crowd" act sophisticated in traditional crowdfunding?
III. Will "the crowd" act *more* sophisticated in equity crowdfunding?

We defined and sorted the variables into groups of independent and dependent variables. We also divided the independent variables into two further groups: one with variables explaining sophistication and another with the remaining independent variables.

Table 3.3.2 Definition of variables

| Dependent variables | |
|---|---|
| Monitoring/MonitoringEQ | Actions including following up and requesting information about results after investing in both traditional and equity crowdfunding |
| Time/TimeEQ | Time spent evaluating and conducting background checks before funding a project in traditional and equity crowdfunding |
| Contacted | Contacting the project initiator before investing (traditional crowdfunding) |
| GovernanceEQ | Open to being actively involved in the project after funding (equity crowdfunding) |
| WOTC | Influenced by how many had invested before them and presume other members of the crowd to be more knowledgeable (traditional crowdfunding) |
| OpenessToEQ | More prone to invest if offered an equity stake in return (equity crowdfunding) |
| MoralHazard | Conscious of the risk that the project initiator may be lying (traditional crowdfunding) |
| SizeMatter | Concerned with receiving a fair or a large share of equity as possible (equity crowdfunding) |
| ReceiveBack | Main motive is to receive something in return (traditional crowdfunding) |
| MeanAmount | Mean funded amount (traditional crowdfunding) |

| Independent variables explaining sophistication | |
|---|---|
| Numeracy | Correctly answered both questions designed to capture numeracy |
| Entrepreneur | Have started at least one company in the past |
| Expertise | Better at determining the quality of the project based on expertise or prior experience. To be classified as an expert respondents only had to answer yes to one of these questions |
| Investor | Have invested in private companies in the past |
| HighEdu | Holding a university degree, three years or more |

| Other independent variables | |
|---|---|
| RiskLover | Reported a 4 or 5 on a scale of 1 to 5 to either of one two questions concerning risk |
| Optimism | Believe the economic situation in Sweden will be much or marginally better in 12 months |
| HihTrust | Reported a 4 or 5 on a scale of 1 to 5 to either of two questions concerning trust |
| Man | Male |
| Age | Numeric |
| Currency | SEK |

## 3.4 Estimation Techniques

To analyze the sophistication and the overall characteristics of "the crowd" we used summary statistics of descriptive variables. After transforming the responses into dummy variables we ran probit regressions to examine the variables affecting various control actions such as screening, monitoring and governance and to see whether sophisticated investors are more active. We ran each dependent variable against every independent sophistication variable, while also running regressions with all independent sophistication variables included at the same time. In all regressions we also included the same set of controls: risk lover, optimism, high trust, gender, age, and currency. The purpose was to eliminate variation that is unrelated to investor sophistication. To analyze the social influence, or wisdom of the crowd effect, we also ran a probit regression with the binary dependent variable WOTC. Here we also included the same set of controls: risk lover, optimism, high trust, gender, age and currency to control for disturbance in the model.

To determine if “the crowd” would screen more in equity crowdfunding we conducted chi-square tests to see whether the time spent to evaluate projects in equity compared to traditional crowdfunding significantly differ. We repeated the process trying to assess the difference between monitoring actions taken after investing in traditional compared to equity crowdfunding.

One of our survey questions (question 10 concerning actions taken after funding a project in traditional crowdfunding) was misinterpreted by Survey Monkey, which failed to include one of the alternatives. To resolve this issue, we relabeled the dummy variable and only used the response rate of one the alternatives, those who contacted the project initiator after funding a project.

## 3.5 Strengths and Weaknesses of the Study

An obvious reason for conducting a survey is the lack of publicly available information about private crowdfunding investors. If there is no publicly available data, we are simply forced to survey the crowd in order to gather information about their characteristics and investment actions. By using a survey we were able to collect a fairly large number or observation (390) that enabled us to test our hypothesis using standardized statistical tests. An alternative method would have been to use a strictly qualitative method. However, another benefit of using a survey is that we are able to analyze a larger sample than would have been possible if conducting qualitative interviews. We are therefore able to combine the benefits of collecting information-rich data with the benefits associated with quantitatively analyzing the data.

A limit of our study is our non-randomized sample, which may complicate the generalization of our findings or indicate sample biases. Another limitation is the 13.3 % response rate, which raises a question about the 86.7 % of “the crowd” that we did not capture in our survey. To test the likeness of the survey and total sample we compared the mean invested amount within the two samples. The result shows the mean amount of our survey sample is 46 % higher than the total sample.  The consequence of this is that our data is mainly based on the most active and dedicated part of “the crowd”. The implication for our result is that the real crowd may be less financially dedicated and perhaps less sophisticated than the people in our survey sample. Another weakness is that a fraction of the mean amount funded (2-3 %) was denominated in other currencies than Swedish kronor. Since the fraction of foreign currency is so small and therefore would not substantially affect our results, we chose to ignore this fact.

Table 3.5: Sample Analysis – Mean Amount Comparison

| Sample | Mean Amount |
|---|---|
| Survey sample | 467 |
| Total sample | 320 |
| Difference (%) | 46% |

To further assess the robustness of our tests, we divided the expertise dummy into two separate dummies (experience and expertise) and ran the regressions again to see whether the significance of our results was affected. We did this only to the expertise dummy since this variable gave most significant results in our regressions. The result of the robust test was that the significance of our results was reduced but since we believe the combining of the two questions to be the correct way to measure expertise, we view this finding to be less important for the quality of our study as a whole.

The result of our research rests on the assumption that we are able to draw conclusions about the potential crowd of equity crowdfunders in Sweden by surveying the existing crowd of traditional crowdfunders. If this assumption is faulty, we run a risk of drawing incorrect conclusions about the crowd of equity crowdfunders. We acknowledge and are aware of this potential risk and of the limitations it puts on our research. We also assume to have been able to correctly measure and collect information about screening and monitoring actions of the crowd. Additionally, we assume the crowd in our sample was able to correctly and truthfully answer questions of monitoring and screening actions in the hypothetical situation of equity crowdfunding. This may not be the case because of the lack of experience or knowledge about what equity is and what it means to be an equity holder, although we presume respondents unfamiliar with the equity concept did not complete the survey and is therefore not included in our data.

Through our research we are able to evaluate expected and unexpected relationships among different variables. It is however important to remember that correlation does not imply causality. We acknowledge we can only test for correlations based on the data we have collected in our survey, and that may be other influential variables not captured in our survey.

# 4. Research Results

## 4.1 How sophisticated are the people in “The Crowd”?

Regarding the sophistication of “the crowd”, 42% had knowledge in the same field as a project they funded and 49 % reported to have been better at judging the quality of the project based on previous experience[75]. We define an expert as someone who answered yes to either one of the questions mentioned above. The results further indicate a lack of investment experience since 77 % has never bought shares in an unlisted company before. As many as 85 % of the respondents have a university degree, which is a much higher average compared to the Swedish average. In 2012, only 34 % of the population had a university degree in Sweden.[76] The share of highly educated respondents (university degree, three years or more) was 64 %. The portion of “the crowd” classified as entrepreneurs was 47 % while only 7 % of the Swedish population was classified as entrepreneurs in 2012.[77] The share of respondents who correctly answered two questions designed to capture numeracy was 44 % and 68 %. The share of “the crowd” that correctly answered both is 27 %.

Considering other personal characteristics of the crowd, 41 % can be classified as a risk lover (reported either a 4 or 5 on a scale of 1 to 5), while 37 % can be classified as neither risk taking or risk avers. 16 % is suspicious against other people and 13 % believe others would take advantage of them if given the opportunity. The question whether “the crowd” consists of optimists or pessimists is inconclusive. The bulk (47 %) believes the economic situation in Sweden will be much or marginally better in twelve months. This is in comparison to the 38 % who believe the economic situation in Sweden will be much or marginally worse.[78]

Table 4.1.1: Crowd Characteristics

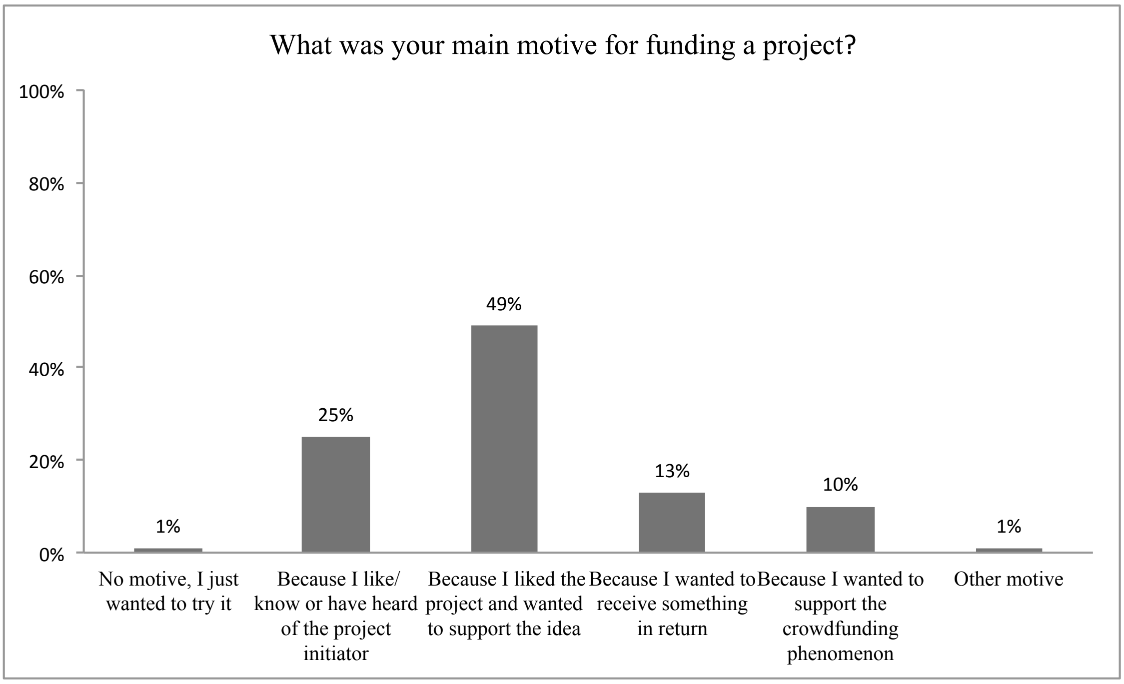
| Category | (% of participants) |
|---|---|
| High Education | 64 |
| Entreprenur | 47 |
| Investor | 23 |
| Expert | 58 |
| Risk Lover | 41 |
| High trust | 69 |
| Optimist | 47 |
| Numeracy | 27 |

When examining the motives behind the decision to fund, 49 % of the respondents replied they

[75] Appendix 9.1, “*Survey Results – FundedByMe*”
[76] Ekonomifakta, 2010 "*Högskoleutbildning, 25-64 år - internationellt*"
[77] Ekonomifakta, 2012 "*Företagare - internationellt*"
[78] Appendix 9.1, “*Survey Results – FundedByMe*”

liked the project and wanted to support the idea. Only 1 % had no clear motive while 25 % decided to fund because they liked or knew the project initiator. Furthermore, 13 % of the crowd reported the main motive of wanting something in return and 10 % of the respondents because they wanted to support the crowdfunding phenomenon. Experts are more likely to report the motive of wanting to receive something in return, as shown in the regression result[79]. Overall "the crowd" felt satisfied with their decision of participating in crowdfunding as 75 % could consider funding another project on a crowdfunding platform in the future.[80]

Table 4.1.2: Crowd Motives




Considering the questions about "the crowd's" openness to equity crowdfunding, 38 % responded they would be more prone to finance a project if they were offered an equity stake while 26 % would not be affected and 11 % less prone to invest. Another interesting finding is that 34 % would like to give more money if offered an equity stake. If they were engaged in equity crowdfunding, "the crowd" would be more concerned about receiving a fair share for their money (36 %) instead of receiving a share as large as possible (9 %).[81] Results from the regression show experts, entrepreneurs and investors with experience of investing in unlisted companies are more open to equity crowdfunding than other investor types.

[79] Appendix 9.2.1, *"Probit Regression, Investment Motive, Traditional Crowdfunding"*
[80] Appendix 9.1, "*Survey Results – FundedByMe*"
[81] Ibid

Table 4.1.3: Probit regression, Openness to Equity Crowdfunding, Traditional Crowdfunding

| | OpenessToEQ | OpenessToEQ | OpenessToEQ | OpenessToEQ | OpenessToEQ | OpenessToEQ | OpenessToEQ |
|---|---|---|---|---|---|---|---|
| Numeracy | 0.038 | | | | | -0.038 | -0.108 |
| | [0.177] | | | | | [0.182] | [0.192] |
| Entrepreneur | | 0.439*** | | | | 0.308** | 0.250 |
| | | [0.132] | | | | [0.138] | [0.152] |
| Expertise | | | 0.492*** | | | 0.419*** | 0.350** |
| | | | [0.132] | | | [0.136] | [0.143] |
| Investor | | | | 0.569*** | | 0.470*** | 0.306* |
| | | | | [0.165] | | [0.169] | [0.181] |
| HighEdu | | | | | -0.048 | -0.055 | 0.018 |
| | | | | | [0.136] | [0.139] | [0.146] |
| Optimism | | | | | | | 0.190 |
| | | | | | | | [0.141] |
| HighTrust | | | | | | | -0.149 |
| | | | | | | | [0.154] |
| Age | | | | | | | -0.245 |
| | | | | | | | [0.232] |
| Currency | | | | | | | 0.239 |
| | | | | | | | [0.276] |
| Man | | | | | | | 0.335** |
| | | | | | | | [0.146] |
| RiskLover | | | | | | | 0.208 |
| | | | | | | | [0.146] |
| _cons | 0.329** | 0.164* | 0.085 | 0.241*** | 0.392*** | -0.046 | 0.475 |
| | [0.162] | [0.088] | [0.098] | [0.073] | [0.109] | [0.197] | [0.878] |
| *N* | 390 | 390 | 390 | 390 | 390 | 390 | 379 |

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

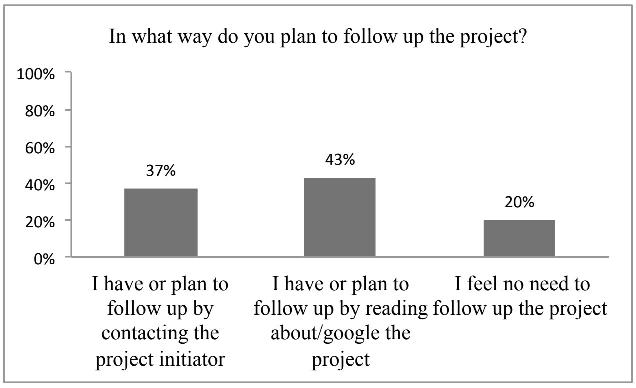
## 4.2 Does "The Crowd" act as a sophisticated investor in Traditional Crowdfunding?

To analyze their habits of screening we asked "the crowd" to report their actions before they decided to fund and how long it took them to make the decision. The results from the survey show only 10 % contacted the project initiator before funding and 72 % made the decision to fund in less than 10 minutes[82]. The results of the regressions show that experts take longer to evaluate each project while optimists are faster in their evaluation of projects[83]. The regressions also show that investors with prior experience of investing in unlisted companies are more likely to contact the project initiator before investing[84].

To determine "the crowd's" willingness to monitor project initiators, we asked about what actions they would take after a decision to fund had been made. While 80 % of the respondents planned to follow up by contacting the project initiator or by reading up on the result on the Internet, 20 % did not feel any need to follow up the project.[85] The result from the regression shows experts are more prone to monitor the owner of the project[86]. What is also clear is that entrepreneurs invest larger amounts of money in each project[87].

[82] Appendix 9.1, "*Survey Results – FundedByMe*"
[83] Appendix 9.2.3, *"Probit Regression, Screening: Time, Traditional Crowdfunding"*
[84] Appendix 9.2.4, "*Probit Regression, Screening: Contacted, Traditional Crowdfunding*"
[85] Appendix 9.1, "*Survey Results – FundedByMe*"
[86] Appendix 9.2.5, *"Probit Regression, Monitoring Activity, Traditional Crowdfunding"*
[87] Appendix 9.2.2, *"Probit Regression, Mean Invested Amount, Traditional Crowdfunding"*

Table 4.2.1: Monitoring Actions in Traditional Crowdfunding




Concerning moral hazard, 48 % of the respondents never thought about the risk that the project initiator was lying or was in any other way deceitful[88]. A smaller share of the respondents (14 %) is always aware of this risk. According to the regression, expertise and risk tolerance is positively correlated with being aware of moral hazard. On the other hand, people with high trust, high age and experience of entrepreneurship are unconcerned with this risk.

Table 4.2.2: Probit regression, Moral Hazard, Traditional Crowdfunding

| | MoralHazard | MoralHazard | MoralHazard | MoralHazard | MoralHazard | MoralHazard | MoralHazard |
|---|---|---|---|---|---|---|---|
| Numeracy | -0.043<br>[0.174] | | | | | -0.036<br>[0.178] | -0.134<br>[0.188] |
| Entrepreneur | | -0.175<br>[0.127] | | | | -0.279**<br>[0.134] | -0.269*<br>[0.149] |
| Expertise | | | 0.276**<br>[0.129] | | | 0.316**<br>[0.133] | 0.312**<br>[0.141] |
| Investor | | | | 0.249*<br>[0.151] | | 0.287*<br>[0.156] | 0.169<br>[0.171] |
| HighEdu | | | | | -0.055<br>[0.132] | -0.080<br>[0.134] | 0.056<br>[0.143] |
| RiskLover | | | | | | | 0.289**<br>[0.142] |
| Optimism | | | | | | | -0.100<br>[0.137] |
| Age | | | | | | | -0.423*<br>[0.226] |
| HighTrust | | | | | | | -0.545***<br>[0.150] |
| Man | | | | | | | 0.366**<br>[0.146] |
| Currency | | | | | | | 0.135<br>[0.284] |
| _cons | 0.081<br>[0.159] | 0.127<br>[0.087] | -0.116<br>[0.098] | -0.013<br>[0.072] | 0.080<br>[0.106] | 0.009<br>[0.191] | 1.495*<br>[0.862] |
| *N* | 390 | 390 | 390 | 390 | 390 | 390 | 379 |

* $p$<0.1; ** $p$<0.05; *** $p$<0.01

[88] Appendix 9.1, "*Survey Results – FundedByMe*"

From a social influence point of view we see that 35 % thought it was completely irrelevant that others had invested before them, while 36 % thought it was fairly relevant. However, only 5 % of the respondents considered other members of "the crowd" to be more knowledgeable about the project than themselves. We also see that 50 % invested in the very beginning of the financing round.[89] The result from the regressions show that entrepreneurs are significantly less likely to value the fact that others had invested before them when making their decision to fund a project. Entrepreneurs are also less likely to consider other members of "the crowd" to be more knowledgeable. These results indicate a weak social influence effect in our sample.

Table 4.2.3: Probit regression, Social Influence, Traditional Crowdfunding

| | WOTC | WOTC | WOTC | WOTC | WOTC | WOTC | WOTC |
|---|---|---|---|---|---|---|---|
| Numeracy | 0.088<br>[0.177] | | | | | 0.134<br>[0.182] | 0.116<br>[0.189] |
| Entrepreneur | | -0.397***<br>[0.132] | | | | -0.444***<br>[0.138] | -0.276*<br>[0.150] |
| Expertise | | | 0.114<br>[0.132] | | | 0.193<br>[0.136] | 0.187<br>[0.143] |
| Investor | | | | -0.067<br>[0.154] | | 0.004<br>[0.159] | 0.069<br>[0.171] |
| HighEdu | | | | | 0.047<br>[0.136] | 0.017<br>[0.138] | 0.055<br>[0.144] |
| RiskLover | | | | | | | -0.230<br>[0.143] |
| Optimism | | | | | | | 0.222<br>[0.140] |
| Age | | | | | | | -0.535**<br>[0.230] |
| HighTrust | | | | | | | -0.096<br>[0.151] |
| Man | | | | | | | -0.128<br>[0.149] |
| Currency | | | | | | | 0.125<br>[0.278] |
| _cons | 0.329**<br>[0.162] | 0.597***<br>[0.093] | 0.337***<br>[0.100] | 0.418***<br>[0.075] | 0.373***<br>[0.108] | 0.383*<br>[0.197] | 2.229**<br>[0.874] |
| *N* | 390 | 390 | 390 | 390 | 390 | 390 | 379 |

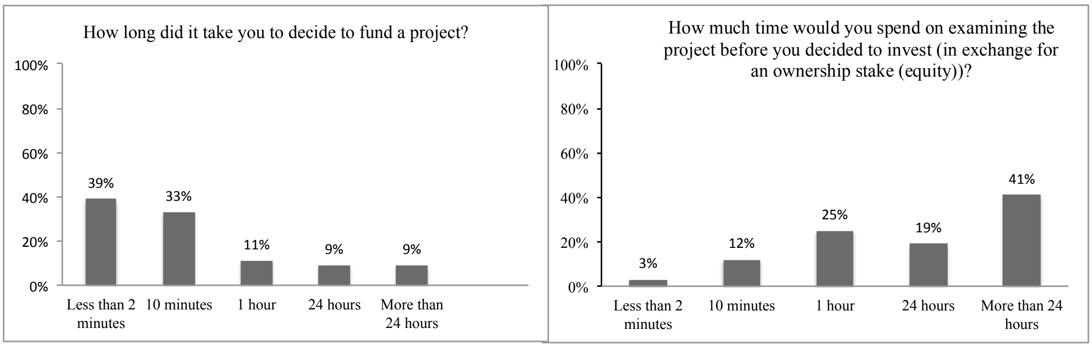
* $p<0.1$; ** $p<0.05$; *** $p<0.01$

## 4.3 Will "The Crowd" act more sophisticated in Equity Crowdfunding?

The results from analyzing the responses from the survey indicate the screening process in equity crowdfunding differs from the screening process in traditional crowdfunding. If offered an equity stake 60 % would spend more than 24 hours to evaluate the project before investing. This is in comparison to the 72 % of respondents who would spend less than 10 minutes before funding in traditional crowdfunding.[90]

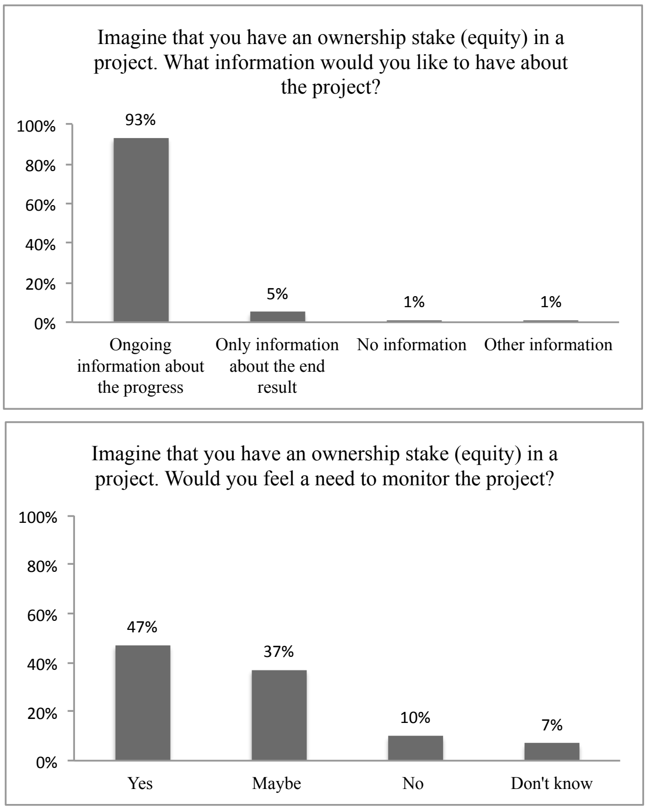
[89] Appendix 9.1, "*Survey Results – FundedByMe*"
[90] Ibid

Table 4.3.1: Screening Actions in Equity vs. Traditional Crowdfunding




Regarding the need to monitor, 47 % would feel the need to monitor the project in equity crowdfunding and 93 % would like to receive ongoing information about the project. This is in comparison to traditional crowdfunding where 20 % does not feel a need to monitor and only 10 % does not feel a need to monitor the project in equity crowdfunding.[91] The results from the regression indicate a weak correlation between expertise and monitoring actions in equity crowdfunding. Trust and age is however significantly negatively correlated with monitoring in the situation of equity crowdfunding. Older, trusting people are therefor less likely to monitor the entrepreneur.[92]

Table 4.3.2: Monitoring Actions in Equity Crowdfunding




[91] Appendix 9.1, "*Survey Results – FundedByMe*"
[92] Appendix 9.2.6, "*Probit Regression, Monitoring Activity, Equity Crowdfunding*"

4.3.3: Probit regression, Monitoring Activity, Equity Crowdfunding

| | MonitoringEQ | MonitoringEQ | MonitoringEQ | MonitoringEQ | MonitoringEQ | MonitoringEQ | MonitoringEQ |
|---|---|---|---|---|---|---|---|
| Numeracy | -0.051 | | | | | -0.057 | -0.068 |
| | [0.174] | | | | | [0.176] | [0.185] |
| Entrepreneur | | 0.016 | | | | -0.011 | 0.108 |
| | | [0.127] | | | | [0.132] | [0.148] |
| Expertise | | | 0.215* | | | 0.226* | 0.179 |
| | | | [0.129] | | | [0.132] | [0.139] |
| Investor | | | | -0.053 | | -0.069 | -0.121 |
| | | | | [0.150] | | [0.154] | [0.168] |
| HighEdu | | | | | -0.061 | -0.063 | 0.059 |
| | | | | | [0.132] | [0.133] | [0.142] |
| RiskLover | | | | | | | 0.254* |
| | | | | | | | [0.140] |
| Optimism | | | | | | | 0.034 |
| | | | | | | | [0.135] |
| Age | | | | | | | -0.682*** |
| | | | | | | | [0.229] |
| HighTrust | | | | | | | -0.400*** |
| | | | | | | | [0.147] |
| Man | | | | | | | 0.017 |
| | | | | | | | [0.145] |
| Currency | | | | | | | 0.182 |
| | | | | | | | [0.274] |
| _cons | -0.040 | -0.091 | -0.209** | -0.071 | -0.044 | -0.106 | 2.209** |
| | [0.159] | [0.087] | [0.099] | [0.073] | [0.106] | [0.191] | [0.867] |
| *N* | 390 | 390 | 390 | 390 | 390 | 390 | 379 |

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

The results from the Chi-square tests show the crowd will take significantly more time to evaluate each project in equity crowdfunding than in traditional crowdfunding[93]. The same is true regarding the different need to monitor the project initiator[94]. The crowd would monitor and screen more in equity crowdfunding compared to traditional crowdfunding.

Regarding "the crowd's" openness to governing project owners in equity crowdfunding, only 19 % would like to be active and participate in the project[95]. Experts and entrepreneurs are however more interested in getting involved or in other ways influence the project, although the results in total indicate an overall lack of interest in participating in projects.

[93] Appendix 9.2.7, "*Chi-Square Test, Screening Activity, Traditional versus Equity Crowdfunding*"
[94] Appendix 9.2.8, "*Chi-Square Test, Monitoring Activity, Traditional versus Equity Crowdfunding*"
[95] Appendix 9.1, "*Survey Results – FundedByMe*"

Table 4.3.4: Probit regression, Governance, Equity Crowdfunding

| | GovernanceEQ | GovernanceEQ | GovernanceEQ | GovernanceEQ | GovernanceEQ | GovernanceEQ | GovernanceEQ |
|---|---|---|---|---|---|---|---|
| Numeracy | 0.374* | | | | | 0.334 | 0.419* |
| | [0.224] | | | | | [0.228] | [0.252] |
| Entrepreneur | | 0.375** | | | | 0.345** | 0.239 |
| | | [0.148] | | | | [0.154] | [0.174] |
| Expertise | | | 0.304** | | | 0.252 | 0.282* |
| | | | [0.153] | | | [0.157] | [0.170] |
| Investor | | | | -0.056 | | -0.159 | -0.376* |
| | | | | [0.176] | | [0.182] | [0.201] |
| HighEdu | | | | | -0.147 | -0.166 | -0.133 |
| | | | | | [0.151] | [0.155] | [0.165] |
| RiskLover | | | | | | | 0.394** |
| | | | | | | | [0.165] |
| Optimism | | | | | | | 0.239 |
| | | | | | | | [0.163] |
| Age | | | | | | | 0.009 |
| | | | | | | | [0.265] |
| HighTrust | | | | | | | 0.078 |
| | | | | | | | [0.177] |
| Man | | | | | | | 0.466** |
| | | | | | | | [0.182] |
| Currency | | | | | | | 0.071 |
| | | | | | | | [0.351] |
| _cons | -1.211*** | -1.080*** | -1.075*** | -0.876*** | -0.797*** | -1.369*** | -2.192** |
| | [0.210] | [0.108] | [0.122] | [0.084] | [0.119] | [0.246] | [1.039] |
| *N* | 390 | 390 | 390 | 390 | 390 | 390 | 379 |

* $p$<0.1; ** $p$<0.05; *** $p$<0.01

Concerning the interest of receiving a fair or as large share as possible in return, experts and investors with entrepreneurial and private investment experience are more prone to base their decision to invest on the size of the equity stake.

Table 4.3.5: Probit regression, Size Matter, Equity Crowdfunding

| | SizeMatter | SizeMatter | SizeMatter | SizeMatter | SizeMatter | SizeMatter | SizeMatter |
|---|---|---|---|---|---|---|---|
| Numeracy | -0.105 | | | | | -0.195 | -0.261 |
| | [0.174] | | | | | [0.180] | [0.194] |
| Entrepreneur | | 0.442*** | | | | 0.342** | 0.403*** |
| | | [0.129] | | | | [0.134] | [0.153] |
| Expertise | | | 0.381*** | | | 0.305** | 0.202 |
| | | | [0.130] | | | [0.135] | [0.143] |
| Investor | | | | 0.552*** | | 0.471*** | 0.439** |
| | | | | [0.152] | | [0.155] | [0.171] |
| HighEdu | | | | | -0.049 | -0.054 | 0.076 |
| | | | | | [0.132] | [0.136] | [0.146] |
| RiskLover | | | | | | | 0.114 |
| | | | | | | | [0.144] |
| Optimism | | | | | | | 0.190 |
| | | | | | | | [0.140] |
| Age | | | | | | | -0.941*** |
| | | | | | | | [0.239] |
| HighTrust | | | | | | | -0.070 |
| | | | | | | | [0.153] |
| Man | | | | | | | 0.576*** |
| | | | | | | | [0.149] |
| Currency | | | | | | | 0.470 |
| | | | | | | | [0.291] |
| _cons | -0.040 | -0.339*** | -0.353*** | -0.259*** | -0.098 | -0.386** | 2.122** |
| | [0.159] | [0.089] | [0.100] | [0.073] | [0.106] | [0.195] | [0.904] |
| *N* | 390 | 390 | 390 | 390 | 390 | 390 | 379 |

* $p$<0.1; ** $p$<0.05; *** $p$<0.01

# 5. Discussion

### How sophisticated are the people in "the crowd"?

The most protruding personal characteristics of "the crowd" are high education, expertise, entrepreneurial experience and a trusting personality. Additionally, we see that "the crowd" has a tendency towards risk taking and that a large fraction of the sample consists of investors with expert knowledge. Based on these facts we conclude that there are no patterns or special overtaking characteristics that would affect their sophistication as investors.

"The crowd's" most common motive to fund was that they believe in the project and they want to help realize it. It is also clear that they are prone to follow up on a project. Therefore, "the crowd's" incentives and actions are similar to business angels. By combining theories with our empirical findings, we can draw the conclusion that crowdfunding has a potential to open up a market for new, sophisticated investors with an interest in being part of the realization of new ideas and projects.

By determining a relatively high sophistication of investors, concerns of information asymmetry and adverse selections should be reduced. "The crowd" is older, and more educated than what non-believers in the equity crowdfunding model argue and they *are* therefore able to make more informed investment decisions. Equity crowdfunding, in comparison to traditional crowdfunding *is* attracting sophisticated investors, contrary to the popular view of those who are against this new, disruptive power. Nonetheless, the question still remains: Is a sophisticated crowd enough to ensure a positive future for equity crowdfunding? Building on fundamental venture capital theories, we argue that strong investor protection and conditions enabling sophisticated behavior are equally important as a having a crowd consisting of sophisticated investors.

### DOES "THE CROWD" ACT SOPHISTICATED IN TRADITIONAL CROWDFUNDING?

Our results show a tendency towards sophistication in traditional crowdfunding, however we are also able to detect some signs of unsophisticated behavior. Based on results from the regressions, the degree of investment sophistication is mainly driven by expertise and entrepreneurial experience. Experts are more prone to screen and monitor and are more concerned with issues of moral hazard. Entrepreneurs are more prone to receive a fair share for the money and people with investment experience are most prone to contact the person behind the project before investing, also implying sophisticated investment behavior. On the other hand, the majority of "the crowd" has never bought shares in an unlisted company before, and although experts take longer, 72 % of "the crowd" made the decision to fund in less than 10 minutes. This finding is an example of unsophisticated investment behavior, but can easily be explained by "the crowd's" investment motives, which were often not about receiving a reward. Because of this, the incentives to carefully evaluate or monitor projects are smaller in traditional crowdfunding.

The social influence effect is apparent if "the crowd" infers the quality of the project from the number of people investing before them and if they believe other members to be more knowledgeable than themselves. However, based on the results from the descriptive statistics, few investors relied on the signaling and expertise of other members, which leads us to conclude that "the crowd" is only marginally subjected to a social influence effect. We believe this to be a sign of crowd sophistication because "the crowd" achieves greater sophistication from it's own diversity of opinions, according to the wisdom of the crowd theory. In conclusion, we see no threat to the success of the traditional crowdfunding model. This model has proven to function even when "the crowd" does not expect or want to receive something in return. However, can the same can be said about the equity crowdfunding model?

### WOULD "THE CROWD" ACT *MORE* SOPHISTICATED IN EQUITY CROWDFUNDING?

The results point to the conclusion that experts are more active and act more sophisticated than other types of investors. Experts are more open to equity crowdfunding, more open to govern and monitor the entrepreneur, and more concerned with moral hazard and receiving large shares in return. If we compare the characteristics of experts with venture capitalists and business angels, the results show many similarities, which leads us to the conclusion that "the crowd" *is* capable of being a good investor.

The results from our tests also clearly show a significantly higher degree of screening and monitoring in equity crowdfunding than traditional crowdfunding. We believe this is the result of differing incentives in each model. If the motive is to earn a return, an investor is more prone to look after his or her investment. The economic incentives to screen and monitor must be high enough to give "the crowd" motivation to act sophisticated, to lower the potential information asymmetry and principal agent problems. The investments need to be large enough to provide incentive for the investors to act sophisticated and the size of "the crowd" also needs to be small enough to prevent the free riding problem. One solution is for the platforms to take on the responsibility of screening before the project is uploaded on the platform. However, it is important that the design of the platform also facilitates screening and monitoring by the investors themselves. The crowdfunding platforms should take on some of the responsibility and not hide behind general warnings to investors of potential high risk. In regards to contracts, platforms should not only recommend the use of legal expertise, they should provide it. Problems surrounding the protection of minority rights and intellectual property are important issues that also need to be dealt with. The rights and obligations concerning these topics are especially important in equity crowdfunding, because it involves investment by many small investors. Platforms should require that entrepreneurs provide answers to important questions such as competitive position, exit opportunities and predictable future dilutions.

Although "the crowd" is capable of being a good investor, our finding poses a new question: Are crowdfunding platforms capable of providing good markets places? Clearly, more can be done to ensure the future of equity crowdfunding and the quality of equity crowdfunding platforms is an important factor. Who is to ensure a qualitative market place for crowdfunding investors in countries like Sweden where equity crowdfunding is only moderately regulated? We hope to see an equity crowdfunding rating system to evaluate and rate the quality of existing platforms and set a standard for new and upcoming platforms in the future.

# 6. Conclusion

Our study contributes new insights about the characteristics of "the crowd" that did not previously exist. To return to our definition, a crowd capable of good investment consists of sophisticated people who act as sophisticated investors, and who are not adversely affected by the social influence effect.

We found that experts and entrepreneurs not only have valuable experience and expert knowledge to contribute, but they are also capable of good investment. Overall, the crowd of traditional crowdfunders consists of sophisticated people who would act more sophisticated in equity crowdfunding. Lastly, we did not reveal clear signs of the social influence effect in our study, which indicates a “wise crowd” according to wisdom of the crowd theory. In conclusion, although a bigger crowd leads to particular problems, "the crowd" is capable of being a good investor.

# 7. Suggestions for future research

Due to the wide extent of the subject of crowdfunding and the limitations of our study, further research on the subject would be extremely interesting.

One suggestion for future research is to examine the entrepreneurs or platforms. When is the equity crowdfunding alternative most suitable? Who is it for? Which industries are likely to reap the most benefits using the equity crowdfunding model? Are crowdfunding platforms capable of providing good market places? It would also be interesting to see how expertise and other characteristics of "the crowd" develop as equity crowdfunding continues to grow. Another interesting suggestion for future research is to study the optimal strategy for the entrepreneur in the financing round. For instance, how big of a portion of the equity should the entrepreneur hold on to in order to be credibility and signal the quality of the project?

There are still many angles from which to study the crowdfunding phenomenon through, as the subject is still very new. The crowdfunding model will likely be refined many times before it settles into a setting and structure that works. It is our understanding that this is just one of many attempts that is to come in the near future to try to gain a better understanding of this phenomenon.

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# 9. Appendix

## 9.1 Survey Results – FundedByMe

### Original language: Swedish

| | Mean | | |
|---|---|---|---|
| **1. Your age: ___ years** | 38 | | |

| | Freq. | Percent | Cum. |
|---|---|---|---|
| **2. Sex:** | | | |
| a) Man | 240 | 62% | 62% |
| b) Woman | 149 | 38% | 100% |
| c) Other | 1 | 0% | 100% |
| **3. Level of education:** | | | |
| a) Elementary school | 4 | 1% | 1% |
| b) Secondary school | 54 | 14% | 15% |
| b) Postsecondary school, less than 3 years | 83 | 21% | 36% |
| c) Postsecondary school, 3 years or more | 227 | 58% | 95% |
| d) PhD | 22 | 6% | 100% |
| **4. Have you posted a project on a crowdfunding platform before?** | | | |
| a) Yes, several times | 4 | 1% | 1% |
| b) Yes, one time | 25 | 6% | 7% |
| c) Never | 361 | 93% | 100% |
| **5. Have you ever started your own business?** | | | |
| a) Yes, several times | 63 | 16% | 16% |
| b) Yes, one time | 120 | 31% | 47% |
| c) Never | 207 | 53% | 100% |
| **6. Have you ever bough shares in an unlisted company?** | | | |
| a) Yes, several times | 41 | 11% | 11% |
| b) Yes, one time | 50 | 13% | 23% |
| c) Never | 299 | 77% | 100% |
| **7. Do you have expertise in the same field as the project you funded?** | | | |
| a) Yes | 111 | 28% | 28% |
| b) No | 228 | 58% | 87% |
| c) In some cases | 51 | 13% | 100% |
| **8. Do you consider yourself to have been better at judging the quality of the project based on you previous experience?** | | | |
| a) Yes | 135 | 35% | 35% |
| b) No | 200 | 51% | 86% |
| c) In some cases | 55 | 14% | 100% |

**9. What was your main motive for funding a project? (Tick one or more boxes)**

| | | | |
|---|---|---|---|
| a) No motive, I just wanted to try it | 8 | 1% | 1% |
| b) Because I like/know or have heard of the project initiator | 164 | 25% | 27% |
| c) Because I liked the project and wanted to support the idea | 319 | 49% | 76% |
| d) Because I wanted to receive something in return | 84 | 13% | 89% |
| e) Because I wanted to support the crowdfunding phenomenon | 64 | 10% | 99% |
| f) Other motive | 8 | 1% | 100% |

**10. What did you do before you decided to fund a project? (Tick one or more boxes)**

| | | | |
|---|---|---|---|
| a) Contacted the project initiator | 38 | 10% | |
| b) Ran a background check of the project initiator on Facebook/webpage/blog | 189 | | |
| c) Thoroughly read up on the project on FundedByMe | 172 | | |
| d) Did nothing/quickly read the project description on FundedByMe | | | |
| e) Other actions | 57 | | |

**11. How long did it take you to decide to fund a project?**

| | | | |
|---|---|---|---|
| a) Less than 2 minutes | 152 | 39% | 39% |
| b) 10 minutes | 127 | 33% | 72% |
| c) 1 hour | 42 | 11% | 82% |
| d) 24 hours | 34 | 9% | 91% |
| e) More than 24 hours | 35 | 9% | 100% |

**12. Where in relation to the funding target was the project when you chose to fund it?**

| | | | |
|---|---|---|---|
| a) In the beginning | 194 | 50% | 50% |
| b) In the middle | 75 | 19% | 69% |
| c) Close to target | 35 | 9% | 78% |
| d) Beyond target | 6 | 2% | 79% |
| e) Varying distances | 42 | 11% | 90% |
| f) Don't know | 38 | 10% | 100% |

**13. How important was it for you to see on FundedbyMe that others also had given money to the project?**

| | | | |
|---|---|---|---|
| a) Very important, I would not have funded otherwise | 21 | 5% | 5% |
| b) Important, I was more prone to fund the project | 93 | 24% | 29% |
| c) Fairly important | 139 | 36% | 65% |
| d) Completely unimportant | 137 | 35% | 100% |

**14. Did you perceive those who supported the project before you as more knowledgeable about the project than you?**

| | | | |
|---|---|---|---|
| a) I thought they were more knowledgeable | 21 | 5% | 5% |
| b) I thought they were less knowledgeable | 12 | 3% | 8% |
| c) I never thought about it | 357 | 92% | 100% |

**15. In what way do you plan to follow up the project?**

| | | | |
|---|---|---|---|
| a) I have or plan to follow up by contacting the project initiator | 145 | 37% | 37% |
| b) I have or plan to follow up by reading about/google the project | 167 | 43% | 80% |
| c) I feel no need to follow up the project | 78 | 20% | 100% |

**16. Can you imagine funding another project in the future?**

| | | | |
|---|---|---|---|
| a) Yes | 293 | 75% | 75% |
| b) Maybe | 86 | 22% | 97% |
| c) No | 1 | 0% | 97% |
| d) Don't know | 10 | 3% | 100% |

**17. Have you ever thought about the risk that the project initiator is using the funds for another purposes than to carry out the project?**

| | | | |
|---|---|---|---|
| a) Yes, always | 54 | 14% | 14% |
| b) Sometimes | 148 | 38% | 52% |
| c) No, never | 188 | 48% | 100% |

**18. How would your decision to fund be affected if offered an ownership stake (equity) in the project?**

| | | | |
|---|---|---|---|
| a) I would be more inclined to invest in the project | 147 | 38% | 38% |
| b) I would not be affected | 103 | 26% | 64% |
| c) I would be less inclined to invest in the project | 43 | 11% | 75% |
| d) Don't know | 97 | 25% | 100% |

**19. Would you like to give more money in exchange for an ownership stake (equity) in the project?**

| | | | |
|---|---|---|---|
| a) Yes, the same amount of money but to more projects | 24 | 6% | 6% |
| b) Yes, more money but to fewer projects | 67 | 17% | 23% |
| c) Yes, more money to the same amount of projects | 61 | 16% | 39% |
| d) No | 103 | 26% | 65% |
| e) Don't know | 135 | 35% | 100% |

**20. How much would your decision to support an equity-project depend on how much you get in exchange for your money?**

| | | | |
|---|---|---|---|
| a) A lot, I wan to receive the largest possible share in exchange for my money | 36 | 9% | 9% |
| b) Not a lot, I want a fair share in exchange for my money | 139 | 36% | 45% |
| c) Size of the share does not matter to me | 88 | 23% | 67% |
| d) Don't know | 127 | 33% | 100% |

**21. How much time would you spend on examining the project before you decide to invest (in exchange for an ownership stake (equity))?**

| | | | |
|---|---|---|---|
| a) Less than 2 minutes | 10 | 3% | 3% |
| b) 10 minutes | 46 | 12% | 14% |
| c) 1 hour | 99 | 25% | 40% |
| d) 24 hours | 75 | 19% | 59% |
| e) More than 24 hours | 160 | 41% | 100% |

**22. Imagine that you have an ownership stake (equity) in a project. Would you like to take part of or in other ways participate in the project?**

| | | | |
|---|---|---|---|
| a) Yes | 73 | 19% | 19% |
| b) Maybe | 225 | 58% | 76% |
| c) No | 44 | 11% | 88% |
| d) Don't know | 48 | 12% | 100% |

**23. Imagine that you have an ownership stake (equity) in a project. Would you feel a need to monitor the project?**

| | | | |
|---|---|---|---|
| a) Yes | 182 | 47% | 47% |
| b) Maybe | 143 | 37% | 83% |
| c) No | 38 | 10% | 93% |
| d) Don't know | 27 | 7% | 100% |

**24. Imagine that you have an ownership stake (equity) in a project. What information would you like have about the progress of the project?**

| | | | |
|---|---|---|---|
| a) Ongoing information about the progress | 364 | 93% | 93% |
| b) Only information about the end result | 19 | 5% | 98% |
| c) No information | 3 | 1% | 99% |
| d) Other information | 4 | 1% | 100% |

**25. Do you see yourself as a person who is willing to take risks? 1 means that you are not willing to take risks, and 5 means you are willing to take risks**

| | | | |
|---|---|---|---|
| a) 1 | 24 | 6% | 6% |
| b) 2 | 60 | 15% | 22% |
| c) 3 | 146 | 37% | 59% |
| d) 4 | 128 | 33% | 92% |
| e) 5 | 32 | 8% | 100% |

**26. Generally speaking, would you say that you could trust most people or that you do best in being suspicious of most people? 1 means that it is better to be suspicious and 5 means that you can trust most people**

| | | | |
|---|---|---|---|
| a) 1 | 17 | 4% | 4% |
| b) 2 | 47 | 12% | 16% |
| c) 3 | 108 | 28% | 44% |
| d) 4 | 153 | 39% | 83% |
| e) 5 | 65 | 17% | 100% |

**27. Do you think most people would take advantage of you if they got the chance, or do you think that most people would treat you properly? 1 means "would take advantage of me" and 5 means "would treat me properly"**

| | | | |
|---|---|---|---|
| a) 1 | 14 | 4% | 4% |
| b) 2 | 35 | 9% | 13% |
| c) 3 | 120 | 31% | 43% |
| d) 4 | 162 | 42% | 85% |
| e) 5 | 59 | 15% | 100% |

**28. How do you think the economic situation is in Sweden in 12 months compared with today? Is it...?**

| | | | |
|---|---|---|---|
| a) Much better | 9 | 2% | 2% |
| b) Somewhat better | 176 | 45% | 47% |
| c) Somewhat worse | 120 | 31% | 78% |
| d) Much worse | 28 | 7% | 85% |
| e) Don't know | 57 | 15% | 100% |

**29. A certain town is served by two hospitals. In the larger hospital about 45 babies are born each day and in the smaller hospital about 15 babies are born each day. As you know, about 50 percent of all babies are boys. However, the exact percentage varies from day to day. Sometimes it may be higher than 50 percent, sometimes lower. For a period of one year, each hospital recorded the days in which more than 60 percent of the babies born were boys. Which hospital do you think recorded more such days?**

| | | | |
|---|---|---|---|
| a) The big hospital | 16 | 4% | 4% |
| b) The small hospital | 170 | 44% | 48% |
| c) About the same (that is, within 5 % of each other) | 204 | 52% | 100% |

**30. Imagine that you toss a coin eight times. Which of the Following two outcomes is the most likely?**

**A: Head, Head, Tail, Head, Tail, Tail, Head, Head**
**B: Tail, Head, Tail, Head, Tail, Head, Tail, Head**

| | | | |
|---|---|---|---|
| a) Alternative A | 49 | 13% | 13% |
| b) Alternative B | 77 | 20% | 32% |
| c) Both are equally likely | 264 | 68% | 100% |

## 9.2 Regression Results and Chi-Square Test Results

### *9.2.1 Probit Regression, Investment Motive, Traditional Crowdfunding*

| | ReceiveBack | ReceiveBack | ReceiveBack | ReceiveBack | ReceiveBack | ReceiveBack | ReceiveBack |
|---|---|---|---|---|---|---|---|
| Numeracy | 0.236 | | | | | 0.279 | 0.268 |
| | [0.206] | | | | | [0.212] | [0.225] |
| Entrepreneur | | -0.156 | | | | -0.248* | -0.148 |
| | | [0.143] | | | | [0.151] | [0.172] |
| Expertise | | | 0.378** | | | 0.446*** | 0.357** |
| | | | [0.149] | | | [0.155] | [0.168] |
| Investor | | | | -0.131 | | -0.147 | -0.139 |
| | | | | [0.172] | | [0.179] | [0.198] |
| HighEdu | | | | | -0.136 | -0.181 | -0.074 |
| | | | | | [0.147] | [0.150] | [0.163] |
| RiskLover | | | | | | | 0.106 |
| | | | | | | | [0.163] |
| Optimism | | | | | | | 0.078 |
| | | | | | | | [0.157] |
| Age | | | | | | | -1.269*** |
| | | | | | | | [0.282] |
| HighTrust | | | | | | | 0.083 |
| | | | | | | | [0.173] |
| Man | | | | | | | 0.462*** |
| | | | | | | | [0.176] |
| Currency | | | | | | | 0.208 |
| | | | | | | | [0.345] |
| _cons | -0.989*** | -0.717*** | -1.022*** | -0.758*** | -0.703*** | -1.046*** | 2.756*** |
| | [0.191] | [0.096] | [0.119] | [0.081] | [0.116] | [0.231] | [1.031] |
| *N* | 390 | 390 | 390 | 390 | 390 | 390 | 379 |

* $p$<0.1; ** $p$<0.05; *** $p$<0.01

### *9.2.2 Probit Regression, Mean Invested Amount, Traditional Crowdfunding*

| | MeanAmount | MeanAmount | MeanAmount | MeanAmount | MeanAmount | MeanAmount | MeanAmount |
|---|---|---|---|---|---|---|---|
| Numeracy | 0.123 | | | | | 0.051 | 0.095 |
| | [0.175] | | | | | [0.178] | [0.188] |
| Entrepreneur | | 0.367*** | | | | 0.328** | 0.160 |
| | | [0.131] | | | | [0.135] | [0.151] |
| Expertise | | | 0.170 | | | 0.093 | 0.125 |
| | | | [0.131] | | | [0.134] | [0.144] |
| Investor | | | | 0.253 | | 0.175 | 0.033 |
| | | | | [0.156] | | [0.160] | [0.177] |
| HighEdu | | | | | 0.131 | 0.133 | 0.195 |
| | | | | | [0.134] | [0.136] | [0.146] |
| RiskLover | | | | | | | 0.101 |
| | | | | | | | [0.145] |
| Optimism | | | | | | | 0.156 |
| | | | | | | | [0.141] |
| Age | | | | | | | 1.001*** |
| | | | | | | | [0.237] |
| HighTrust | | | | | | | -0.217 |
| | | | | | | | [0.154] |
| Man | | | | | | | 0.052 |
| | | | | | | | [0.150] |
| Currency | | | | | | | 1.055*** |
| | | | | | | | [0.299] |
| _cons | 0.204 | 0.140 | 0.209** | 0.250*** | 0.224** | -0.061 | -4.626*** |
| | [0.160] | [0.087] | [0.099] | [0.073] | [0.107] | [0.193] | [0.914] |
| *N* | 390 | 390 | 390 | 390 | 390 | 390 | 379 |

* $p$<0.1; ** $p$<0.05; *** $p$<0.01

*9.2.3 Probit Regression, Screening: Time, Traditional Crowdfunding*

| | Time | Time | Time | Time | Time | Time | Time |
|---|---|---|---|---|---|---|---|
| Numeracy | 0.280 | | | | | 0.255 | 0.217 |
| | [0.194] | | | | | [0.196] | [0.204] |
| Entrepreneur | | -0.033 | | | | -0.124 | -0.045 |
| | | [0.135] | | | | [0.141] | [0.156] |
| Expertise | | | 0.430*** | | | 0.442*** | 0.409*** |
| | | | [0.141] | | | [0.144] | [0.151] |
| Investor | | | | 0.004 | | -0.022 | -0.071 |
| | | | | [0.159] | | [0.163] | [0.177] |
| HighEdu | | | | | 0.037 | -0.000 | 0.053 |
| | | | | | [0.140] | [0.143] | [0.151] |
| RiskLover | | | | | | | 0.243 |
| | | | | | | | [0.148] |
| Optimism | | | | | | | -0.260* |
| | | | | | | | [0.145] |
| Age | | | | | | | -0.361 |
| | | | | | | | [0.242] |
| HighTrust | | | | | | | -0.124 |
| | | | | | | | [0.155] |
| Man | | | | | | | 0.108 |
| | | | | | | | [0.154] |
| Currency | | | | | | | -0.434 |
| | | | | | | | [0.280] |
| _cons | -0.808*** | -0.554*** | -0.833*** | -0.570*** | -0.593*** | -0.993*** | 0.723 |
| | [0.180] | [0.092] | [0.112] | [0.077] | [0.113] | [0.213] | [0.915] |
| *N* | 390 | 390 | 390 | 390 | 390 | 390 | 379 |

* $p$<0.1; ** $p$<0.05; *** $p$<0.01

*9.2.4 Probit Regression, Screening: Contacted, Traditional Crowdfunding*

| | Contacted | Contacted | Contacted | Contacted | Contacted | Contacted | Contacted |
|---|---|---|---|---|---|---|---|
| Numeracy | -0.102 | | | | | -0.102 | -0.214 |
| | [0.231] | | | | | [0.237] | [0.249] |
| Entrepreneur | | 0.070 | | | | -0.024 | 0.104 |
| | | [0.175] | | | | [0.183] | [0.204] |
| Expertise | | | 0.181 | | | 0.182 | 0.102 |
| | | | [0.181] | | | [0.186] | [0.197] |
| Investor | | | | 0.383** | | 0.389** | 0.507** |
| | | | | [0.191] | | [0.196] | [0.217] |
| HighEdu | | | | | -0.204 | -0.224 | -0.142 |
| | | | | | [0.178] | [0.182] | [0.196] |
| RiskLover | | | | | | | -0.451** |
| | | | | | | | [0.208] |
| Optimism | | | | | | | 0.259 |
| | | | | | | | [0.190] |
| Age | | | | | | | -0.451 |
| | | | | | | | [0.306] |
| HighTrust | | | | | | | 0.052 |
| | | | | | | | [0.206] |
| Man | | | | | | | 0.183 |
| | | | | | | | [0.214] |
| Currency | | | | | | | 0.136 |
| | | | | | | | [0.403] |
| _cons | -1.211*** | -1.330*** | -1.407*** | -1.403*** | -1.172*** | -1.284*** | 0.074 |
| | [0.210] | [0.122] | [0.143] | [0.105] | [0.137] | [0.258] | [1.190] |
| *N* | 390 | 390 | 390 | 390 | 390 | 390 | 379 |

* $p$<0.1; ** $p$<0.05; *** $p$<0.01

### *9.2.5 Probit Regression, Monitoring Activity, Traditional Crowdfunding*

| | Monitoring | Monitoring | Monitoring | Monitoring | Monitoring | Monitoring | Monitoring |
|---|---|---|---|---|---|---|---|
| Numeracy | 0.170 | | | | | 0.117 | 0.100 |
| | [0.192] | | | | | [0.194] | [0.205] |
| Entrepreneur | | 0.170 | | | | 0.093 | 0.060 |
| | | [0.146] | | | | [0.151] | [0.166] |
| Expertise | | | 0.313** | | | 0.277* | 0.249 |
| | | | [0.146] | | | [0.149] | [0.155] |
| Investor | | | | 0.228 | | 0.177 | 0.146 |
| | | | | [0.179] | | [0.183] | [0.193] |
| HighEdu | | | | | 0.187 | 0.163 | 0.159 |
| | | | | | [0.149] | [0.151] | [0.159] |
| RiskLover | | | | | | | 0.234 |
| | | | | | | | [0.160] |
| Optimism | | | | | | | 0.041 |
| | | | | | | | [0.153] |
| Age | | | | | | | -0.015 |
| | | | | | | | [0.252] |
| HighTrust | | | | | | | -0.093 |
| | | | | | | | [0.167] |
| Man | | | | | | | -0.202 |
| | | | | | | | [0.165] |
| Currency | | | | | | | 0.315 |
| | | | | | | | [0.288] |
| _cons | 0.700*** | 0.765*** | 0.670*** | 0.792*** | 0.726*** | 0.411** | 0.309 |
| | [0.174] | [0.097] | [0.107] | [0.081] | [0.116] | [0.209] | [0.947] |
| *N* | 390 | 390 | 390 | 390 | 390 | 390 | 379 |

* $p$<0.1; ** $p$<0.05; *** $p$<0.01

### *9.2.6 Chi-Square Test, Screening Activity, Traditional versus Equity Crowdfunding*

```
. tabulate Time TimeEQ, chi2 column row V

+-------------------+
| Key               |
|-------------------|
|     frequency     |
|  row percentage   |
| column percentage |
+-------------------+

           |        TimeEQ
      Time |         0          1 |     Total
-----------+----------------------+----------
         0 |       227         52 |       279
           |     81.36      18.64 |    100.00
           |     67.96      92.86 |     71.54
-----------+----------------------+----------
         1 |       107          4 |       111
           |     96.40       3.60 |    100.00
           |     32.04       7.14 |     28.46
-----------+----------------------+----------
     Total |       334         56 |       390
           |     85.64      14.36 |    100.00
           |    100.00     100.00 |    100.00

          Pearson chi2(1) =  14.5958   Pr = 0.000
               Cramér's V =  -0.1935
```

### *9.2.7 Chi-Square Test, Monitoring Activity, Traditional versus Equity Crowdfunding*

```
. tabulate Monitoring MonitoringEQ, chi2 column row V

+-------------------+
| Key               |
|-------------------|
|     frequency     |
|  row percentage   |
| column percentage |
+-------------------+

           |    MonitoringEQ
Monitoring |         0          1 |     Total
-----------+----------------------+----------
         0 |        55         23 |        78
           |     70.51      29.49 |    100.00
           |     26.44      12.64 |     20.00
-----------+----------------------+----------
         1 |       153        159 |       312
           |     49.04      50.96 |    100.00
           |     73.56      87.36 |     80.00
-----------+----------------------+----------
     Total |       208        182 |       390
           |     53.33      46.67 |    100.00
           |    100.00     100.00 |    100.00

          Pearson chi2(1) =  11.5616   Pr = 0.001
               Cramér's V =   0.1722
```