

What types of rewards motivate the crowd to invest in crowd funding projects?

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ABSTRACT: The topic of crowd funding is a relatively new topic to the world of finance therefore the purpose of this study was to further expand the research into explaining the motivation of the crowd to invest in crowd funding projects and to find out which factors are more important than the other. The findings from this research should enable crowd funders to find the best and optimal way to reward their investors in order to attract the most suitable and best investors.

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Keywords

Crowd-funding, Agency-theory, Reward, Netherlands, equity, profit-sharing, donation, pre-ordering.

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1. INTRODUCTION

Crowd funding is a very new topic to the world of finance, therefore there are limited studies regarding the topic. Crowd funding has become a main source of funding for entrepreneurs who are seeking external financing (Belleflamme et al 2014). Crowd funding is essentially raising finance from individuals from the “crowd” who provide small amounts therefore it is an alternative to the traditional way of external financing which was having sophisticated investors (Belleflamme et al 2014). One of the reason why crowd funding has become popular is due to the use of technology and electronic payment (Rubin 2012). This can be explained through the development and widespread of the internet and the development of Web 2.0 (Zhang 2012). The main benefit of Web 2.0 is that it allows individuals to access a platform where one can collaborate and combine own knowledge and resources for the benefit of one project with others (Zhang 2012). The sophisticated technology that humans possess allows people all over the world and people who are not in the same geographic location to still support each other in terms of finance. The increase in crowd funding has been empirically analyzed and the reports give an impressive number in terms of growing volume of money collected through crowd funding worldwide (Belleflamme et al 2014). One of the reason why investors or the “crowd” choose to invest is due to that fact that they know they helped something happen (Rubin 2012). In crowd funding, investors can choose to invest for several reasons such as getting equity in return, profit sharing, donation and or pre ordering (Belleflamme et al 2014). However there are still questions regarding why individuals or the “crowd” choose to contribute. The study that I wish to conduct will try to answer the question “ What types of factors motivates the crowd to invest in crowd funding projects?”. By answering this question, we will be able to further understand the subject of crowd funding and find out why investors take part in crowd funding initiatives and help entrepreneurs understand which factors are more important to the investors when making their decisions regarding whether they should invest or not.

Currently, the models that exists are concerned about the different factors that influence financing options in different industries and companies however an insight into which factors are more important than the others are not well studied. This study contributes to the academic literature regarding crowd funding and helps entrepreneurs understand what factors are more important than the others in terms of capital raising for crowd funding projects. This study can also help entrepreneurs in crowd funding projects to analyze the way they are going to attract individuals from the crowd and find the best possible actions that should be taken in order for them to reach their goal. Theoretical frameworks regarding investments can enhance my ability to conduct this test and add value to the existing knowledge of crowd funding. Theories such as the agency theory which talks about the relationship between shareholders or equity holders and entrepreneurs. This can help this study and us understand whether the goals of the investors/crowds align with the goals of the entrepreneurs. This might be the reason why people choose to partake in crowd funding as individuals can invest in projects that they feel have the same goal and intention as they would like to. Secondly, theories regarding cognitive psychology can help us understand how individuals or the crowd make their decisions and what influences their behavior in making these decisions. According to Dunham, decision makers do not make decision rationally and most of the decisions that are made are from incomplete or limited information (Dunham 2010). This type of

psychological decision making processes can be used to understand why the crowd or investors make their decisions in investing in crowd funding projects. The paper will be based on the Netherlands as well as other countries that have strong background in crowd funding to get valid and reliable findings. The Netherlands is one of the leading countries in crowd funding. According to Song 2015, the Dutch government helps individuals and entrepreneurs who are seeking to raise finance through crowd funding platforms (Song 2015). The leading countries in crowd funding are known to be the United States of America, The Netherlands and the UK (Douw et.al 2013). This is due to the existence of crowd funding platforms in these countries and the availability and ability for individuals or the crowd to access it. The most common and well known crowd funding platform in the Netherlands is Symbid.nl.

The successful companies or entrepreneurs were able to raise 12,000 euros on average in 2012 (Douw et.al 2013). Also the importance of crowd funding platform can be seen from the successful crowd funding projects as 95% of the successful crowd funding projects start on crowd funding platforms whereas only 5 percent of the crowd funding projects that are successful are raised through the entrepreneur or the projects own website (Douw et.al 2013). The Netherlands were able to raise 14 million euros in the year of 2012 alone for crowd funding projects and this figure only accounts for 570 projects (Douw et.al 2013). Figure 1 shows how much variety there is in the total amount of investment and how the total of 14 million euros were used in different projects. Also extending on the finding of 570 different projects, it can be seen that creative projects take up a substantial amount of the projects however, they do not require as much capital whereas in contrast the wind control project which is only one of the 570 projects however it takes up half of the total investment that was part of the crowd funding’s projects in 2012 in the Netherlands.

2. LITERATURE REVIEW

2.1 Explaining the crowd

In any businesses and projects, investors are seen to be a vital stakeholder of the firm as they hold the capital which is required for the business to move forward (Lev 2011). However, it may be quite difficult for businesses and entrepreneurs to raise capital in the initial stages of their project (Berger and Udell, 1995) . Likewise, in crowd funding, one of the important participants is also the investor. The investors are called the crowd due to the way it is conducted. It is essentially raising capital from individuals from the “crowd” who are able to provide different amounts regardless of its quantity in order for the crowd funding project to move further (Belleflamme et al 2014). Belleflamme further explains that much of the crowd is found through social networks such as Twitter, Facebook, LinkedIn and other crowd funding based platforms (Belleflamme et al 2014). The use of the internet allows broader contact and ability to communicate their message and obtain capital from the crowd all over the world or from people who an entrepreneur would of never had any way to communicate before. A research conducted regarding the Web 2.0 and the development of internet found that the existence of Web 2.0 (development of the internet) allows individuals and companies to broaden the capability of their firm by allowing user content to inflow and create value for the company (Schwienbacher et.al 2010). This is similar to the actions of the crowd where an individual uses the Web 2.0 to use their resources as well as knowledge in some cases to create value for the project that is being undertaken. Many different literature refer to the motivation of crowd funders being attracted to financial or

monitory reward or for sense of achievement and/ or adding value to the welfare of society in their own environment or elsewhere. They can be categorized as being extrinsic motivation which can be defined as the financial return on the investment and the second factor being the intrinsic motivation which is related to the satisfaction of seeing an idea you believe in getting real or being part of something new. Hemer explains that one of the main reasons for individual or the crowd funders to invest is their interest in having a sense of ownership in the projects that they are investing thus owning equity (Hemer 2011). On the other hand the valuation of the companies that are virtual at the time of the capital raising period creates its own set of difficulties as individuals will have different perceptions on how valuable they see the firm being (Hemer 2011). In a more traditional manner, entrepreneurs would seek funds from the bank or large investors while promising equity however, due to the lack of collateral such as assets, they find this difficult to obtain hence crowd funding being the attractive choice of capital raising (Vance 2015). On the other hand, there are other extrinsic motivational factor such as profit sharing. This is done when the entrepreneur promises a percentage of their profit in the future in exchange for the individual's investment in the current time. (Seneco 2013). On the contrary, the intrinsic factors are less concerned with big wins in the future but rather as the impact it has on the individual or the environment in which they see as being relevant to them. One of these motivational factors can be regarding the sense of achievement and being able to help society or an individual through their ability to finance the projects (Firth 2012). This type of investment can be done in the form of donation where the individual makes an investment without any commitment from the entrepreneur in terms of tangible or financial reward but rather as having an impact (Lehner 2013). This idea is also further explained by Belleflamme who says that donation is one of the ways individuals can invest in crowdfunding projects.

2.2 Traditional ways of financing

According to Belleflamme, the main difference between obtaining capital from the crowd and obtaining capital through other means such as angel investors and the bank is due to the size of capital being asked for from each individual and the ability to involve lots of individuals from the crowd in obtaining the capital (Belleflamme et al 2014). Before the existence of crowd funding and the use of crowd funding, entrepreneurs had a very difficult time in obtaining capital and the choice of the way the capital is raised is dependent on the risk, reward and size of the project that the entrepreneur is willing to take (Vance 2015).

In the book written by Vance about the different ways to raise capitals, the first choice that entrepreneurs look at is whether they are able to use their own capital in order to finance the operations however this is not always feasible as the cost of a start up can be high (Vance 2015). Secondly, an entrepreneur can choose to pitch their business idea and model to potential investors such as angel investors, the bank and asset based lenders. However, one of the main obstacles with these type of investors is that they want to see collateral such as assets of the entrepreneur himself or the assets that the business might already have in possession but this is not always the most feasible and available type of offering (Vance 2015).

Lastly, a valid choice for companies/ entrepreneurs is to go public and have an initial public offering (IPO) (Vance 2015). However, this cannot be done by whoever pleases to do so as it

can only be attainable by certain companies and entrepreneurs at certain stages in their growth (Vance 2015).

2.3 Crowd funding

In this part of the paper, the concept of crowd funding will be further explained and how it works. Furthermore, theories that can be used to explain the behavior of companies and individuals motivation to invest will be further explained. Last but not least, the study focuses on the individual's intention to invest in the Netherlands therefore the crowd funding situation within the Netherlands will be discussed.

2.3.1 Crowd funding and how it works.

As explain by Belleflamme et al, the word crowd funding comes from the broader concept of crowd sourcing which in simple terms is about collecting ideas, feedback and solutions from the crowd in order to develop corporate activities (Belleflamme et al. 2014). Further explaining the idea of crowd sourcing, a company can post a problem online on a crowd sourcing platform that is available and it reaches individuals with different backgrounds, knowledge, age who offer solutions to the problem (Bradhom 2008). The best idea is then rewarded by the company who initially started the question and the solution is used to create profit or go into mass production for the benefit of the company (Bradhom 2008). Likewise, crowd funding is the same principle of attracting the crowd to raise capital for the requirements of the firm. Contrary to more traditional ways of capital raising such as public offering or bank loans, the motivation of individuals seem to be more dispersed due to the fact that the capital being provided by each individual is not a huge sum of money (Belleflamme et al 2014). This idea is further explained by Jhaveri who says that the concept of crowd funding is not a new one. Individuals and communities have pooled money together for a common cause, participated in a shared business investment or contributed money towards a larger cause (Jhaveri 2012). This is the same principle where communities create a sum of money by investing small sums from their own money in order to create or make something happen. However, what makes crowd funding of today so unique is their ability to get investors or individuals from the crowd from all over the world or locations that may not have been possible without the physical presence of the entrepreneur. The existence of crowd funding platforms on the world wide web has created its presence on the internet and allows individuals to invest or participate in projects (Jhaveri 2012).

However, the existence of such platforms brings its share of problems such as how to manage them as an entrepreneur might never actually meet their investors. Secondly, the question of rewards comes into question. What type of reward motivates individuals to invest in crowd funding projects?. That is the main core of this paper and that's what this paper will attempt to answer.

2.4 Chosen motivational factors in the study

Many of the authors give different assessment on how each individual may be motivated to take part in crowdfunding projects. It can be extrinsic motivational factors or intrinsic motivational factors. The 4 factors of motivation given by Belleflamme are chosen to continue this study as I is a collection of many authors opinions on the motivational factors that affect the investors decision. As explained by Belleflamme, investors or the individuals choose to invest due to four main reasons, which are all to do with reward which can be tangible in the

form of cash, equity or intangible in the form of feeling good about what they did. The four types of reward are equity based model, profit sharing model, donation based model and pre ordering model (Belleflamme et.al 2014). These factors will be further explored. Please refer to appendix 1 to see an overview of the literature review on these subjects.

2.4.1 Equity based crowd funding

The simple definition of equity can be explained as the amount of money raised by the firm that comes from the owners or also known as the shareholders investment (Hillier et.al 2011). Likewise, for crowd funding projects, equity is given as reward in exchange for the investment from individuals from the crowd. This gives the investor a sense of ownership in the crowd funding projects. According to Hemer, equity based crowd funding is one of the difficult branches of crowd funding (Hemer 2011). He further defines equity based crowd funding as "Crowd funders invest equity, the reward are either in shares of the venture, dividends and / or voting rights" (Hemer 2011). This is also in line with the definition of equity in return from investment from Belleflamme et.al 2014. However, one of the difficulties with equity based crowd funding is the failure to correctly assess the value of a company since a good valuation to one person can be seen as totally irrelevant and incorrect by others (Brodersson et.al 2014). The agency theory which is concerned about the relationship between the principal and the agent is relevant to equity based crowd funding (Jensen et.al 1976). The agency theory views firms as a bundle of contracts where different agents will act opportunistically within efficient markets and therefore the agency costs should be minimized (Stephan 2002). In the case of equity based crowd funding, the agency theory can help us understand how the goals of equity crowd funders or the individual investors align with the entrepreneurs. Due to the delegation of tasks and transfer of responsibility there are some agency dilemma in motivating one party due to the fact that both parties (the principal and the agent) have different interests and asymmetric information (Zhang 2012).

Hypothesis 1: The equity in return for the investment is positively related to the motivation of the crowd to invest. From the investor's point of view, having equity in the project that they are investing in gives the investors a sense of ownership thus creates better security in terms of future return on the amount they are investing. Due to the fact that there can be many investors in crowd funding projects, entrepreneurs do not disclose all information to the crowd therefore there is information asymmetry that can lead to agency problems. Furthermore, Dunham points out that many of the investors in crowd funding projects make their decisions on incomplete information hence ownership in the company can be the stronger force in getting investors to invest (Dunham 2010). Also investors may feel that having ownership of the project can reduce opportunistic behavior thus decreasing the agency cost (Jensen et.al 1976).

Hypothesis 1.2: The difference in the assessment of the value of the firm from the entrepreneur and the crowd is negatively related to the motivation of the crowd to invest. One of the main problems of equity based funding is the difference in the valuation of the company/ project due to the fact that the project is early in its development stage and entrepreneurs may have different perception or optimistic assumption about the future returns of the firm (Brodersson et.al 2014). Therefore the difference in the assessment of the valuation of the company is negatively related to the motivation of the crowd to invest.

2.4.2 Profit sharing model

Profit sharing model is when an investor chooses to receive a share of the company's revenues that can amount to 2 to 5 times more than the original investment (Seneco 2013). This is an alternative to the modern or traditional way of having shares in the business, which was described earlier as the equity based model. The profit sharing model is beneficial to the entrepreneurs since they do not have to give up any stake in their company to obtain capital (Seneco 2013). Profit sharing model is more expensive than other forms of finance since the interest rate on the initial investment tends to be around 25% (Seneco 2013). According to Lo Nigro et.al 2011 the amount of profit is dependent to the effort made for the collaboration. This explains that the more you invest, the higher the profit that the investors receive in the future will be (Lo Nigro et.al 2011). In terms of crowd funding, the same principle is applied where the crowd is invited to provide a fixed sum of money to the entrepreneur and in return they are promised a share of the future profit in exchange (Belleflamme et al 2014). However, the profit is not shared until sales have been made from the product, which may take a long time hence becoming unattractive to investors (Belleflamme et.al 2014). The cognitive psychology theory can be used to support the idea of profit sharing as the cognitive psychology theory suggests that individuals make decisions on incomplete and limited information (Dunham 2010). Also the paper by Huang and Chen 2006 highlight the follower effect where individuals from the crowd may choose to invest because the profit sharing may sound very positive and therefore follow one another without having full information regarding the operations and full business plan on how the entrepreneur plans to make the profit and share it. They say that investors or the individuals may simply choose to throw their money at something because they gain momentum ((Huang et.al 2006).

Hypothesis 2: The amount of the interest rate on the initial investment is positively related to the motivation of the crowd to invest in profit sharing model.

The main advantage for entrepreneurs in using profit sharing model is their ability to keep full ownership of their company however, in order to attract the crowd; they need to give financial incentives such as interest on the initial investment. Having a higher margin than other projects can be a source of attraction thus the higher the interest rate on the initial investment, the higher the chances of the crowd in investing since they will be getting higher returns from the profit in the future. According to Lo Nigro et.al 2011 the amount of profit is dependent to the effort made for the collaboration thus if the investors believe that the amount of interest on the initial investment is enough of an effort to gain their approval, then they will be more willing to invest. Extending on the follower effect given by Huang and Chen 2006, if investors see other individuals taking part in a project that promises higher interest rate on the initial investment, then they will be willing to take part.

2.4.3 Donation based model

As explained by Rubin 2012, many individuals invest in crowd funding projects simply due to the reason of contributing to something that achieves certain results in their community as well as around the world (Rubin 2012). Due to the low amount of cash needed by each individual, the times when individuals decide to simply donate without having any promised return in any form in the future is increasingly becoming visible. An example of the donation-based model is given by Firth 2012 who explains the situation when 87,000 people donated over 3 million US dollar in 2012 within 2 months for a videogame (Firth 2012). This huge collection of funds was done through

crowd funding platform Kickstarter. The main aspect of the donation-based model is that the individuals are not seen as investors but rather as philanthropists (Firth 2012). The donation-based model is mostly visible for social ventures where the different individuals who are investing or donating share a common vision with the entrepreneur and they believe that their contribution will increase the welfare of society as a whole or a group of people. The main advantage for donation-based model for the entrepreneurs is that the entrepreneurs do not lose any shares thus keeping full ownership of the project that they intend to create (Lehner 2013). Lehner points out that while given or free, donors expect a certain type of reward such as having a social impact or creating a noble feeling of creating a better environment in society (Lehner 2013). However, the competition for donations will become increasingly competitive therefore it will become scarce (Lehner 2013).

Hypothesis 3: The impact of the project on society and on the individual (or having a shared vision) is positively related to the motivation of the crowd to donate to projects. According to the agency theory, the best way a company or a start up can function is when the agency cost is low and that is possible through the minimization of conflict between the investors and the entrepreneurs (Jensen et.al 1976). Therefore if the individual or the crowds have a shared vision, then the agency problem is minimized therefore the projects can go on to becoming successful. One of the main reasons why individuals may choose to invest can be due to impact of the project as donators may feel that they have accomplished or taken part in making something happen (Lehner 2013).

2.4.4 Pre ordering model

The main goal of the pre ordering model is the entrepreneur's ability to gain individuals from the crowd who are willing to pre-order the product therefore pay for it. The payment from the individuals may be used to finance the projects therefore becomes beneficial to the project. According to Kappel, there are 2 stags in which pre-ordering model is used at. Firstly, individuals have different drivers, motivation and abilities to participate therefore getting the potential crowd funders requires using different tools to increase their initial affection to the project. One way to do this can be through offering enhanced experience (Kappel 2008). According to Belleflamme et. al, one of the important factors that entrepreneurs have to take into account is to use price discrimination depending on the behavior and intention of the crowd funders (Bellflamme et.al 2012). In order to raise enough capital, the entrepreneur needs to attract certain amount of individuals who are willing to pay the pre-ordering fee. In the selling period, entrepreneurs may choose to set a higher retail price if the campaign was a huge success therefore they reward the crowd funders for their loyalty to pre-order the product when they were raising capital but at the same time benefit from the higher profit margins. One of the main reasons why individuals may choose to pre-order may be due to their knowledge and assumption about what they believe will be the retail price and what they can pay know to get a bargain.

Hypothesis 4: The use of price discrimination when using the pre-ordering model is positively related to the motivation of an individual to pay for the pre-order. Offering the product cheaper or at a discount than the retail price at launch can be the main attraction of the individuals from the crowd to pre-order the product. One important factor that is gaining popularity and showing its importance are lead users. According to Kappel, it is important to give an enhances experience of what the product can do for the individuals investing, therefore if the individuals pre-ordering believe that

the product can be a use to them in the future, then they will be more willing to invest given that there are other motivational factors affecting their decisions (Kappel 2008). Lead users are people who experience problems before it is shown or known to the general public (Reference IBD book). Therefore the crowd who has a similar problem as the one the entrepreneur is trying to fix can be said to be lead users. The fact that they invest so that the problem the entrepreneur is trying to fix is also relevant to them is connected to their willingness to pay in order to find a product that can fix this problem. Therefore I hypothesis that the willingness of a crowd to invest is positively correlated with their ability to pre-order the product. Please refer to Appendix 1 for the overview of the findings from the different literatures.

3 METHODOLOGY

3.1 Designing the survey:

In order to design the survey, firstly the literature review was conducted in order to find common ground between different authors and understand the motivation of the crowd funders from the literature. This allows greater understanding of the subject of crowd funding and its main factors that motivate the crowd funders. Therefore the main purpose of the survey was to validate the results from the literature reviews and supporting theories found during the research process. Sets of 25 questions were designed that were categorized into 6 different areas. The first part of the survey has to do with pre knowledge about crowd funding and whether the participant has invested in crowd funding before and/or whether they have intentions to do so. The second part of the survey is about the equity based model followed by profit sharing model followed by donation based model and the last being the pre-ordering model. The final part of the survey was designed to get some demographic answers about the participants and this was left to be the last set of questions as studies show that asking demographic questions may alter the results as participants are aware of their answers to the demographic questions while answering the rest. Most of the questions are answerable in the form of Likerts scale ranging from Strongly Agree to Strongly Disagree whereas some questions are a simple yes or no questions. Furthermore, there are some ranking questions as well as open questions to allow participants to voice what they think about certain ideas and subjects. In order to test different hypothesis, statements were made: Please refer to appendix 4

4. DATA

Due to the short-term existence of crowd funding and unsophisticated market for it in my places over the world, there is a shortage of data that can be used to study this topic. Therefore, in order to study this topic and answer my research question "What are the motivating factors for the crowd to take part in crowd funding projects?" I will need to collect data myself. In order to do this, I have created a survey that was distributed to students from different universities over the Netherlands and other countries in order to understand the different factors that motivate them to take part. The survey was distributed through the means of social media using online survey form Google Form. In order to increase the validity of the survey, the intention was to get at least 50 responses from the total participants. The survey was distributed through social media to students from mostly the Netherlands and some other students from other countries such as Mongolia and United States. Social media was chosen as a platform to distribute the survey due to its importance in the

world of business and its ability to allow small businesses as well as crowd funders to communicate to their potential funders. In order to test whether these types of distribution method was correct and whether the survey had correct as well as relevant questions, it was distributed to 4 participants before being available to the target general population. The response from the 4 participants were indeed positive and found the survey to be useful and correctly structured as well as easy to understand by someone without depth knowledge about crowd funding therefore after this pre-test, the survey was distributed through social media to the general target population.

In order to analyze the findings, firstly the Likerts scale will be recoded into quantified answers such as 1,2,3,4,5 being assigned to Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree. This is done to allow the software SPSS to analyze the data and do statistical tests. This will allow the software to find the mean, mode, and median as well as Interquartile range which will allow me to find the spread of the opinions. The use of mean, mode and median by researchers in survey based research are common therefore it will be used (Larsen et.al 2013). Furthermore, the Cronbach alpha coefficient will be used to find consistency in the answers of the variables of each hypothesis. The Cronbach's alpha test is used in survey based papers to find consistency between the answers from the survey (Wilson et.al 2012). From these findings, a conclusion will be drawn and the hypothesis will be accepted or refuted.

5 RESULTS

The survey was distributed to a total of 83 individuals however, 55 individuals took part in the survey but 1 of the 55 was incomplete therefore not used in for the analyzes of the results. About 66% of the total individuals approached to complete the survey took part therefore it was successful. Furthermore the initial plan to acquire 50 or more participants was accomplished. Research has shown that internal surveys generally receive 30-40% response rate where external surveys receive about 10-15% response rate. The response rate from these survey surpluses these numbers therefore is successful. The reasons for these might have been the important that was put on trying to create as few questions as possible while getting the answers needed which many respondents find dissatisfying therefore leave the survey before completing it which was the case only 1 time in this survey. The reason why students were chosen as the target population was due to their knowledge regarding the use of the Internet and their pre knowledge about crowd funding. University students also have extensive knowledge about the use of social media as well as other World Wide Web to learn about new ideas and projects. The designed survey, the factors that were seen as motivating individuals from the crowd to invest in crowd funding projects were taken into account. The 4 factors were chosen to be equity based, profit sharing based, donation based and pre-ordering based. These factors were chosen due to their mutual occurrence in the views of the different authors studied for the purpose of this paper.

A total of 54 (n=54) participants took part in the survey.

5.1 Respondent characteristics

Firstly, some basic information were asked to get some information regarding the gender, age and nationality however these factors are not directly relevant to this study however can be used in future studies. A total of 83 individuals took part in

the survey however all 54 were completed thus will be analyzed for the purpose of this study. The unusable, irrelevant 29 responses were deleted and removed from the data due to its incompleteness and unreliability. Three questions regarding demographics were asked and are shown below.

From Table 1: Panel A shows the dispersion between the nationalities that took part in the survey. It can be seen that 51.9 % of the participants were Dutch whereas 20.4% of the participants were German. The rest of the participants are from different countries such as Mongolia, Russia, India and more. In terms of gender Panel B shows the genders, the survey was completed by 27 participants from each gender making the test very interesting to take gender into account. Panel C shows the age of the participants, which shows that most of the participants were between the ages 18 to 25.

Panel A: Nationality

		Frequency	Percent
Valid	Chinese	1	1.9
	Colombian	1	1.9
	Dutch	28	51.9
	German	11	20.4
	Indian	1	1.9
	Indonesia	2	3.7
	Mongolian	2	3.7
	Polish	2	3.7
	Russian	1	1.9
	Spanish	1	1.9
	Turkish	1	1.9
	US	3	5.6
Total		54	100.0

Panel B: Gender

		Frequency	Percent
Valid	Female	27	50.0
	Male	27	50.0
Total		54	100.0

Panel C: Age

		Frequency	Percent
Valid	>35	1	1.9
	18-21	17	31.5
	22-25	23	42.6
	26-30	13	24.1
	Total	54	100.0

Table 1 Demographic information

5.2 Analyzing the findings

5.2.1 Equity based model hypothesis findings

The findings show that when the participants were given statements about whether having ownership is important, the mean answer was a 2.9 or on the borderline of between agreeing and being neutral whereas the median answer is seen

Statistics	N		Mean	Median	Mode	Percentiles			IQR
	Valid	Missing				25	50	75	
Statement: 6	54	0	2.9074	3	2	2	3	4	2
Statement: 7	54	0	2.2407	2	2	2	2	3	1
Statement: 8	54	0	2.4444	2	2	2	2	3	1

Table 2 Mean, Median, Mode and Inter-Quartile range for Equity based model findings

to be neutral (Table 2). However, the most occurring answer or also known as the mode, the participants mostly agreed. Furthermore, the Interquartile range which gives us the spread of opinions is a 2 which means that people had a relatively spread opinion since the ranking is spread from 1 to 5. Additionally regarding the statement about whether participants will invest in a company that promises higher equity the mean was a 2.24 which means the mean number of answers agreed to the statement which also had a median of 2 and mode of 2. Therefore participants agreed to this statement. The interquartile range was a 1 which shows that the spread of opinions were not that spread therefore most of the participants agree with one another on this topic. Furthermore, the statement regarding whether having some sort of ownership allows the investors to voice their opinion, the values for the mean were 2.4 whereas for median and mode the answers were 2. Therefore once again, the participants agree to the statement. The interquartile range was found to be 1, which meant that the spread of opinion was again small. Please refer to table 2 for more information.

The Cronbach's alpha test was done to see whether there was consistency between the answers of the 3 variables that were assigned to hypothesis 1. The finding shows a 0.541. 0.541 means there is a poor consistency in the answers to the 3 survey statements (Table 3). This is mostly probably influenced by the answers to question 6 where the mean, mode and median different from question 7 and 8. Please refer to appendix 2 to see graphical representation of the findings.

Hypothesis	Cronbach's Alpha	N of Items
1	0.541	3
1.2	0.125	2
2	0.395	4
3	0.737	3
4	0.27	3

Table 3 Cronbach's Alpha findings

In order to test hypothesis 1.2 regarding valuation of equity, 2 statements were made in the form of having different valuation of the equity will put of investors and the latter being about whether investors will renegotiate. The findings show that for question 9 the mean was 2.74, which meant participants were between agreeing and neutral with a median of 3 and a mode of 2. Where as for statement 10, the mean was a 2.4074 with a

	N		Mean	Median	Mode	Percentiles			IQR
	Valid	Missing				25	50	75	
Statement: 9	54	0	2.7407	2	2	2	2	3	1
Statement: 10	54	0	2.4074	2	2	2	2	3	1

Table 4 Mean, Median, Mode and Inter-Quartile range of equity valuation

median of 2 and mode of 2 (Table 4). The interquartile range were 1 for both statements. The answers from the participants were not that spread thus participants generally had similar opinions. The Cronbach's alpha test was used again to find a value 0.125 which meant there is no consistency in the answers between the 2 findings (Table 3). This hypothesis was mainly based on the idea of Brodersson et.al 2014 who assumed that different valuation of the equity between the crowd and the entrepreneur will lead to less investment however, the findings show that investors are willing to renegotiate in order to be able to invest (Brodersson et.al 2014). Please refer to appendix 2 to see graphical representation of the findings.

5.2.2 Profit sharing model hypothesis findings

In order to test hypothesis 2, 4 statements were made regarding the profit sharing model. Statement 11 was about whether the investors expect to receive reward in the form of cash. Participants had a mean value of 2.7963 which meant they answers mostly had a mean of ranging between agree and undecided (Table 5). This variable also had a mean of 2 and mode of 2, which were both agreeing to the statement. Statement 12 was regarding the expected percentage interest where participants had a mean value of 2.6 and median of 2 and mode of 2 (Table 5). From research, it was found that the average return on investment in the form of cash (profit sharing) was known to be around 25%. The findings for this variable showed that most investors expect to receive between 10-20%, which is lower than the average rate, and the average was 2.6 which is between 20-30% therefore the profit sharing is reasonable by both parties (Seneco 2013). Statement 13 was regarding their perception of amount of reward based on their input and participants had a mean of 2.7037, median 2 and mode of 2 which once again shows that they expect to receive higher proportion than others if they invest. Statement 14 was regarding the follower effect, which was suggested, by Huang and Chen 2006 and it is further explained by the intentional behavior of the participants, which had a mean value of 2.4815 and median of 2 and mode of 2. The interquartile ranges for statement 12,13,14 are all 1 whereas for statement 11, it is 2 (Table 5). Please refer to appendix 2 to see graphical representation of the findings.

From table 3, it can be seen that the Cronbach's alpha test gave a 0.395, which shows that there is a poor consistency between the answers given by the participants.

	N		Mean	Median	Mode	Percentiles			IQR
	Valid	Missing				25	50	75	
Statement: 11	54	0	2.7963	2	2	2	2.5	4	2
Statement: 12	54	0	2.6	2	2	2	2	3	1
Statement: 13	54	0	2.7037	2	2	2	3	3	1
Statement 14:	54	0	2.4815	2	2	2	2	3	1

Table 5 Mean, Mode and Inter-Quartile range for Profit-Sharing model findings

5.2.3 Donation based model hypothesis findings

Hypothesis 3 was concerned about the donation-based model where individuals were asked about whether they would invest by purely donating. The answers were in support of the hypothesis where the mean results of the variables ranged between 1-2,

which meant that the participants either strongly agreed or agreed with most of the answers (Table 7). An open question was set up for this factor asking why they would purely donate and the most occurring answer was due to the fact that the amount they would donate won't be that high therefore they will have a positive impact on someone's life without giving up too much. Please refer to appendix 2 to see graphical representation of the findings.

The Cronbach's alpha test was used to test the consistency between the answers given by the participants. The answer is a 0.737, which can be said to be good, and there is good consistency between the answers (Table 3). This is the highest Cronbach's alpha value from all the hypothesis. The findings further explain the ideas and assumptions of the authors as well as the agency theory where it was believed that having a shared vision and the feeling of accomplishing something will reduce the agency cost therefore lead to a successful project (Jensen et.al1976).

5.2.4 Profit-sharing based model hypothesis findings

Hypothesis 4 was concerned about pre-ordering. The mean answers to question 19 and 21 were between the values 2-3 which meant that they agreed with these factors which were about paying lower if they pre-order the product and whether they expect to receive the product before the general market. These statements also received median and mode of 2,s whereas the interquartile range was 2 for statement 19 and 0.5 for

statement 21 respectively (Table 7). These factors were also stated in the hypothesis as several authors outlined the importance of offering the product at a discount than the retail price to attract individuals from the crowd to pre-order (Belleflamme et.al 2012). Kappel 2008 also outlined the importance of giving enhanced experience of what the product can do for the individuals investing therefore a question was set up regarding the use of the product before the general market (Kappel 2008). This idea gave a strong 2.1667 average, which meant that most of the 54 participants agreed to the idea. However, statement 20 which was regarding whether investors felt that the time between pre-ordering and receiving the product should be short, participants were relatively disagreeing with the statement therefore giving a mean of 3.4815 and 4 for mode and median whereas the interquartile range was 1 meaning the spread of opinion was minimal. Therefore participants do not mind waiting for the product.

The Cronbach's alpha test gave a 0.270, which is unacceptable or inconsistent. This answer is due to the findings from statement 20 which contradicted the answers given the statement 19 and 21 (Table 3).

Please refer to appendix 3 to view the raw results of the findings to the survey.

	N		Mean	Median	Mode	Percentiles			IQR
	Valid	Missing				25	50	75	
Statement: 15	54	0	1.3704	1	1	1	1	1	1
Statement: 17	54	0	1.8148	2	2	1	2	2	1
Statement: 18	54	0	1.8333	2	1	1	2	2	1

Table 6 Mean, Median, Mode and Inter-Quartile range of donation based model

	N		Mean	Median	Mode	Percentiles			IQR
	Valid	Missing				25	50	75	
Statement: 19	54	0	2.2037	2	2	1	2	3	2
Statement: 20	54	0	3.4815	4	4	3	4	4	1
Statement: 21	54	0	2.1667	2	2	1.75	2	2.25	0.5

Table 7 Mean, Median, Mode and Inter-Quartile range of pre-ordering model

6. CONCLUSION

The purpose of the study was to help entrepreneur make decisions regarding the type of reward they should offer the investors in order to attract the crowd in investing in their projects. To conclude it is important to rethink about the hypothesis and check whether it was accepted or declined.

Hypothesis 1: The equity in return for the investment is positively related to the motivation of the crowd to invest.

The mean for the 3 variables that were tested for this hypothesis all gave a mean between 2-3 which meant that participants were either agreeing with the statements or undecided about the statement. Also the mode and median were 2 and 3's while the interquartile ranges were 1 and 2's. Therefore hypothesis 1 is accepted.

Hypothesis 1.2: The difference in the assessment of the value of the firm from the entrepreneur and the crowd is negatively related to the motivation of the crowd to invest.

In order to test hypothesis 1.2, 2 variables were assigned however conflicting answers were found as participants suggested they would walk away if they had a different valuation from the investors but they are willing to renegotiate therefore hypothesis 1.2 is refuted or not accepted.

Hypothesis 2: The amount of the interest rate on the initial investment is positively related to the motivation of the crowd to invest in profit sharing model.

In order to test hypothesis 2, 4 variables were assigned, the mean of the 4 variables were between 2-3. The mode and median were all 2's while the inter-quartile range were 1 and 2's. Therefore hypothesis 2 is accepted.

Hypothesis 3: The impact of the project on society and on the individual (or having a shared vision) is positively related to the motivation of the crowd to donate to projects.

The hypothesis was accepted by the findings where the mean ranged from 1 to 2 whereas the median and mode were also 1 and 2's with the interquartile range being 1's for all statements. Furthermore, the Cronbach alpha gave the strongest reading of the entire paper with a .737 which meant there is good correlation therefore hypothesis 3 is accepted (Table 3).

Hypothesis 4: The use of price discrimination when using the pre-ordering model is positively related to the motivation of an individual to pay for the pre-order.

In order to test hypothesis 4 3 variables were assigned which were regarding the time taken to reach the market, price discrimination and receiving the product before the general market. The findings show that Price discrimination and receiving the product before the general market were hugely important in making the decision to pre-order the product. However the time taken to reach the market does not matter to the investors as the mean to this variable gave a 3.4815 which is between the value 3 and 4 meaning participants were left undecided or they disagree with this statement. Also the mode and median for statements regarding getting the product before the general market and paying less than the general market, they received a mode and median of 1 and 2's while their interquartile range were 1's. However the Cronbach alpha gave a 0.270 which is the lowest and poor consistency. However, hypothesis 4 was accepted.

In summary hypothesis 1,2,3,4 were accepted whereas 1.2 was refuted or not accepted. In conclusion it can be said that the research was a success however several survey bias might have impacted the results negatively. To be more specific the types of bias that may have impacted the results from the survey may be impact by the response bias, which refers to the bias that occurs from problems from the measurement process. These can be categorized by leading question bias and social desirability bias.

Leading question bias refers to the way the statements are structured in a way that the statements are loaded with words that favor one response over the other. Secondly the social desirability bias refers to the participants who wish to present themselves in favorable lights. These types of bias are present as it can be seen that the majority of the responses agreed to the statement made as the statements portrayed the positive response that was needed.

Looking at the means and the correlation between the variables, it can be seen that the donation-based model is the factor that is most positively correlated to the intention to invest scoring 1,3708, 18148 and 1.8333 respectively and scoring 1 and 2's on the median, mode tests. Secondly, the pre-ordering model has a mean of 2.2037 and 2.1667 for the variables, which support the hypothesis, and 3.4815, which is against the hypothesis. Thirdly, the profit sharing model is seen to be the third most important type of reward system whereas equity comes last.

The research was done for crowd funding projects overall and not for specific industry or types of projects therefore should be taken into consideration when being applied. In order to improve this paper in the future, one should get more responses where the number of individuals who are willing to invest is proportionally close to the ones who are not willing to invest. The fact that only 4 participants responded saying they are not willing to invest does not allow this paper to explore how crowd funders can attract the individuals who are not willing to invest therefore it should be studied further.

7.ACKNOWLEDGEMENT

This report is written as Bachelor Thesis for the study International Business Administration – specialization Finance and Accounting from the University of Twente Enschede. It is about crowd funding and what motivates the crowd to invest in crowd funding projects. More concrete about the factors, which are important for the intention to invest in a crowd funding.

I would like to thank my supervisor, Dr. X. Huang, for her support and feedback during the process of writing my bachelor thesis. The guidance and support from my supervisor allowed me to use my time efficiently to concentrate on the important parts of the thesis and to improve on areas that I was not completely confident in.

Secondly, I would like to thank all the 83 individuals whom I approached to complete my survey but this thesis wouldn't have been possible without the 54 complete responses.

I hope one would enjoy while reading this thesis.

Enschede, The Netherlands
July 2015

Bazarragchaa Narmandakh

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9. APPENDICES

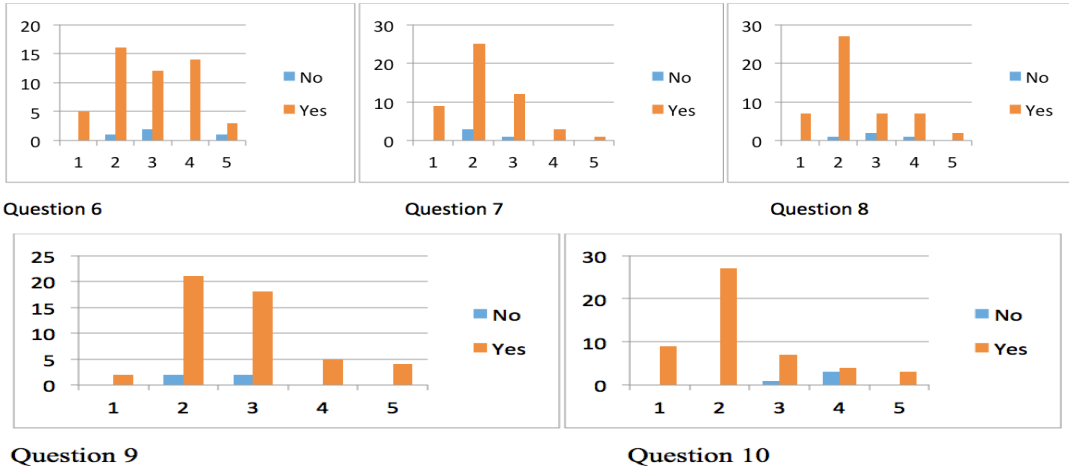
Authors	Equity Based Model	Profit Based Model	Donation Based Model	Pre-Ordering Based model
Hillier et.al 2011	X			
Hemer 2011	X			
Broersson et.al	X			
Belleflamme et.al 2014	X	X	X	X
Zhang 2012	X		X	
Seneco 2013		X		
Lo Nigro et.al 2011		X		
Dunham 2010	X	X		
Huang et.al 2006	X	X		
Rubin 2012			X	
Filth 2012			X	
Lehner 2013			X	
Kappel 2008				X

Appendix 1:

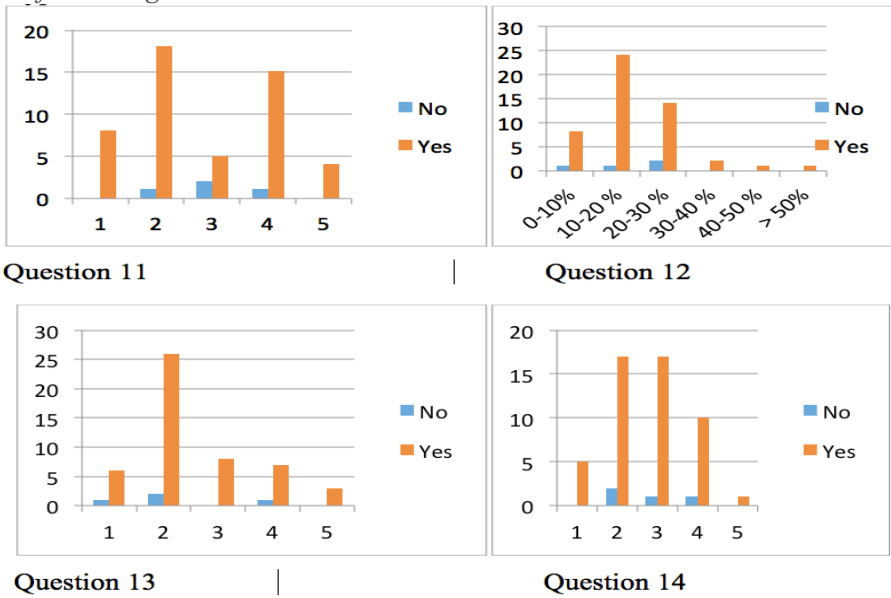
Summary of the opinions of the different authors.

Appendix 2: Graphical representation of findings

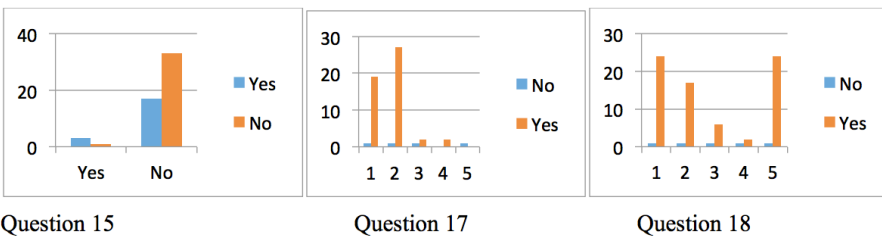
Equity based model:



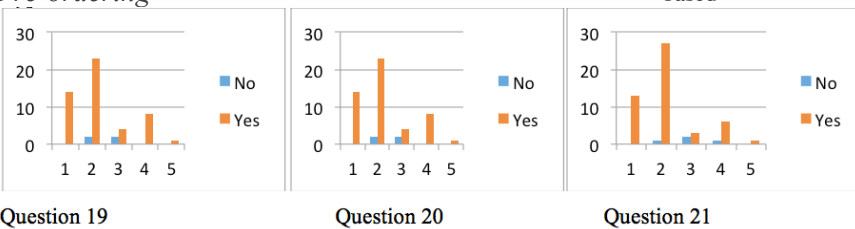
Profit sharing model:



Donation based model:



Pre-ordering



Appendix 3: Findings from survey

model:

Statement 6: Having some sort of ownership in the project I invest in is important to me.			Statement 7: I would invest in a company that promises higher equity than its equivalent competitors		
Statement 6	Frequency	Percent %	Statement 7	Frequency	Percent %
Strongly Agree	5	9.3	Strongly Agree	9	16.7
Agree	17	31.5	Agree	28	51.9
Undecided	14	25.9	Undecided	13	24.1
Disagree	14	25.9	Disagree	3	5.6
Strongly Disagree	4	7.4	Strongly Disagree	1	1.9
Total	54	100		54	100

Statement 8: Having some sort of ownership within the company I invest in will allow me to voice my opinion			Statement 9: Different interpretation about the valuation of the company with company with the entrepreneurs will put me off from investing.		
Statement 8	Frequency	Percent %	Statement 9	Frequency	Percent %
Strongly Agree	7	13	Strongly Agree	2	3.7
Agree	28	51.9	Agree	23	42.6
Undecided	9	16.7	Undecided	20	37
Disagree	8	14.8	Disagree	5	9.3
Strongly Disagree	2	3.7	Strongly Disagree	4	7.4
Total	54	100		54	100

Statement 10: I would negotiate with the project leaders over the valuation of the company before I decide to walk away			Statement 11: I expect to receive cash returns by investing in crowd funding projects		
Statement 10	Frequency	Percent %	Statement 11	Frequency	Percent %
Strongly Agree	9	16.7	Strongly Agree	8	14.8
Agree	27	50	Agree	19	35.2
Undecided	8	14.8	Undecided	7	13
Disagree	7	13	Disagree	16	29.6
Strongly Disagree	3	5.6	Strongly Disagree	4	7.4
Total	54	100		54	100

Statement 12: The percentage of interest I would like to receive on my initial investment if I choose cash return is			Statement 13: If I invest more than other investors, I want to receive higher interest rate on my return		
Statement 12	Frequency	Percent %	Statement 13	Frequency	Percent %
0-10%	9	16.7	Strongly Agree	7	13
10-20%	25	46.3	Agree	28	51.9
20-30%	16	29.6	Undecided	8	14.8
30-40%	2	3.7	Disagree	8	14.8
40-50%	1	1.9	Strongly Disagree	3	5.6
>50%	1	1.9		54	100
Total	54	100			

Statement 14: If a crowd of people are investing in a project because the return on the investment (in the form of cash) is high, i would also take part			Statement 15: Would you invest in a project by purely donating cash?		

Statement 14	Frequency	Percent %	Statement 15	Frequency	Percent %
Strongly Agree	5	9.3	Yes	34	63
Agree	19	35.2	No	20	37
Undecided	18	33.3	Total	54	100
Disagree	11	20.4			
Strongly Disagree	1	1.9			
Total	54	100			

Statement 17: I would donate to a project if I feel passionate and I share a common vision with the project			Statement 18: I would donate if the project increases the welfare of my society		
Statement 17	Frequency	Percent %	Statement 18	Frequency	Percent %
Strongly Agree	20	37	Strongly Agree	25	46.3
Agree	28	51.9	Agree	18	33.3
Undecided	3	5.6	Undecided	7	13
Disagree	2	3.7	Disagree	3	5.6
Strongly Disagree	1	1.9	Strongly Disagree	1	1.9
Total	54	100	Total	54	100

Statement 19 : When pre-ordering a product from a crowd funding projects, the price has to be lower than the retail price			Statement 20: When pre-ordering a product from a crowdfunding project, the time between my order and the launch of the product has to be short.		
Statement 19	Frequency	Percent %	Statement 20	Frequency	Percent %
Strongly Agree	14	25.9	Strongly Agree	0	0
Agree	25	46.3	Agree	10	18.5
Undecided	6	11.1	Undecided	15	27.8
Disagree	8	14.8	Disagree	22	40.7
Strongly Disagree	1	1.9	Strongly Disagree	7	13
Total	54	100	Total	54	100

Statement 21: When pre-ordering a product from a crowd funding project, I want to have the product before the general market		
Statement 3	Frequency	Percent %
Strongly Agree	13	24.1
Agree	28	51.9
Undecided	5	9.3
Disagree	7	13
Strongly Disagree	1	1.9
Total	54	100