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Two Sides of the Same Coin: Essays Investigating the Founder and Backer Dynamics of Crowdfunding

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TWO SIDES OF THE SAME COIN: ESSAYS INVESTIGATING THE FOUNDER AND BACKER DYNAMICS OF CROWDFUNDING

A Dissertation

by

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ABSTRACT

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Crowdfunding provides the opportunity for entrepreneurs to acquire capital for their projects by utilizing a platform that allows the masses to provide funds towards the completion of the project. Thus, it can be looked at as two sides of the same coin. On one side you have the entrepreneurs seeking the funds otherwise known as founders, and on the other are those that provide the funds also known as backers. The purpose of this study is to investigate what factors lead to founders successfully attaining their funding, what motivates backers to support the projects, and whether the founders can deliver post-funding.

Under the theoretical lens of signaling theory, the first study explores how founders manage the information asymmetry dynamic within crowdfunding and what factors are associated with acquiring the capital to successfully fund technology-based projects within reward-based crowdfunding. Specifically, I predict that the innovativeness of a project, the skills, abilities, honesty and kindness of founders, can positively affect crowdfunding achievement. I also hypothesize and test that positive emotional characteristics can strengthen the relationship between products usefulness and funding success. Data was collected from the Kickstarer.com crowdfunding platform to test the theory. The analyses show that specific individual skill (entrepreneurs' industry experience) negatively influences their funding success, but entrepreneur's personal characteristics (previous funding experience and frequent updates) are

positively related to crowdfunding achievement. In addition, the level of education positively influences the relationship between innovation and funding success. The study suggests that social factors dominate crowdfunding more than economic soundness, however recent studies suggest a conflict. Moreover, there has been little to no research investigating what happens after crowdfunding achievement.

Building off of the first study, the second essay focuses on two areas, what motivates funders to give and do they know what they are doing. Specifically, I investigate which signals are most effective at identifying founders that deliver on their projects. I argue that three types of orientations are exhibited by backers as a result of the signals they prioritize. They include stakeholder, enthusiast, and advocate orientation. Backers that exhibit stakeholder orientation are more likely to support projects that the founders can execute post-funding in terms of delivery time and quality expectations, whereas those that display advocate orientation will support projects where they may never be executed by the founder. Enthusiast orientation is characteristic of backers that are focused on the innovativeness and usefulness of a product. Consequently, these products may be too difficult for founders to deliver on time or meet the quality expectations they set forth.

In order to test the hypotheses, I conduct a survey of backers, which provides the opportunity to shed light into an area that has been significantly neglected in crowdfunding research. Whether backers know how to select effective entrepreneurs.

DEDICATION

I would like to begin by dedicating this dissertation to my better half and partner in life, my wife Laura Ceballos, M.D. Without your continuous support and belief in me to strive for greatness I would not have been fortunate enough to complete this. To my two sons Marcelo and Rafael who when I began this journey were too young to notice what I was doing and who now have seen the hard work and dedication of what it takes for 'daddy to go to school'. You both inspire me to be the best father and role model I can be for you. To my mother Maria del Carmen Garcia de Ceballos for her unbounded optimism and positivity. To my father Ruben Ceballos, M.D. for being my inspiration and hero all these years. To my mother and father in law Leila and Armando Narvaez for your help taking care of wonderful boys and making our home complete. We are spoiled beyond belief. Finally, to my extended friends and family, thank you all for your encouragement throughout the years.

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CHAPTER I

INTRODUCTION

1.1 Crowdfunding two sides of the same coin

The entrepreneurship process involves the identification, evaluation and exploitation of attractive business opportunities by enterprising individuals (Shane and Venkataraman, 2000). In order to start or grow a business one needs capital. Without some form of financing it is nearly impossible to get started (Cosh et al., 2009). For nascent entrepreneurs the biggest sources of financing come from their friends, family and neighbors (Bygrave and Quill, 2006). Crowdfunding is a new vehicle that is changing this dynamic in the recent years. Furthermore, Crowdfunding (CF), which draws its roots from crowdsourcing, is providing entrepreneurs with the ability to access capital from an entirely new source, the masses (Lehner, 2012).

This new dynamic is changing the way individuals do business. It is a disruptive force in the mechanism of raising capital for a startup or existing business. Accordingly, it has quickly become an increasing area of importance for industry as well as policy makers as witnessed by the passage of the Jumpstart Our Business Act in April 2012, which allowed for the issuing of stock through CF in the U.S. Moreover, CF raised approximately $2.7 billion dollars globally in 2012 with over 1 million successfully funded campaigns and that number grew to $34.4 billion in 2015 (Massolution, 2013, Crowdsourcing.org, 2015). Despite the significant growth of CF over this short time, research investigating CF is under explored due to the relative infancy of the

field, for example the leading CF platform Kickstarter was established in 2009. Previous studies (Agrawal et al., 2011; Burtch et al., 2013; Giudici et al., 2013; Kuppuswamy & Bayus, 2013; Mollick, 2014; Davidson & Poor, 2016) have shown that CF has been used to raise capital for a multitude of projects such as art, design, fashion, film, music and publishing. Although the research into CF is growing, further investigation into the dynamics of CF is warranted. Accordingly, there exist various questions that remain unanswered. Specifically, I will focus on three areas pertaining to this dynamic. First, I will explore how individuals who are seeking capital influence the crowd into providing them with funds to back their project. Second, I will explore the motivations of the individuals that are providing the funding to those seeking capital. In the final area, I will focus on what occurs in the post funding stage by determining whether or not those who provide financial support to projects are any good at selecting successful projects.

1.2 Motivation

The purpose of this dissertation is to examine those aforementioned areas. Consequently, I intend to investigate these dynamics through two essays. The first will look concentrate on those who are seeking capital, and the second will focus on those who provide the funding. Accordingly, I argue that CF can be looked at as a two-sided coin. On one side is the entrepreneurs, and on the other the investors in the project. Specifically, in the first essay, I focus on the topic of how technology entrepreneurs can utilize signaling theory to secure CF for their individual projects. Information asymmetry is one of the problems that entrepreneurs have to face when seeking financing (Shane & Cable, 2002).

To mitigate the information asymmetry problems, signaling theory suggests that entrepreneurs send signals to investors about the quality and value of their opportunities and later

their ventures through private equity ownership (Bruton et al., 2009; Jain et al., 2008), founder ownership (Busenitz et al., 2005), top management team characteristics (Cohen and Dean, 2005; Higgins and Gulati, 2006; Zimmerman, 2008), corporate governance features (Sanders and Boivie, 2004), and alliances and associations with other companies (Balboa and Marit, 2007; Gulati and Higgins, 2003).

However, such signals are not available for CF project founders (Mollick, 2014). Consequently, it is important to make inquiries on how founders manage the information asymmetry dynamic so that successful funding targets for their projects can be achieved. Connelly et al. (2011) claim that the intent signals have not been fully investigated and the typology of signals should be examined for a more comprehensive understanding of CF. Indeed, prior research has demonstrated that CF platform invites more signals of social causes (Moss et al., 2015). For example, Allison et al. (2015) found projects with language signaling financial goals fare worse than those sending signals emphasizing on project social benefits. This research classifies CF project signals into three types, mind, heart and product. Furthermore, I study how each type influences, and how they interact to affect CF outcomes. The first essay attempts to answer the following research questions. What are the characteristics of technology projects that can lead to successful CF? Does the presence of certain characteristics reduce the amount of information asymmetry between founders and funders by signaling? Which characteristics and/or signals are associated with successful achievement of funding targets?

Signaling theory is useful for describing behavior when two individuals or organizations have access to different information (Shane & Cable, 2002). Specifically, it is predicted that the innovativeness of a project, the skills, abilities, honesty and kindness of individual workers, can positively affect CF achievement.

In the second essay, I will focus on the motivations of the individuals who fund projects and whether or not they are able to identify entrepreneurs that can deliver on the proposed project they are seeking funds for. Notwithstanding the widespread use of CF, challenges to both the individuals funding projects and those seeking funds still exist. On one hand, those providing funds face uncertainty, information asymmetry and moral hazards (Schwienbacher & Larralde, 2010). For instance, most CF platforms provide limited amount of information on the campaigns, thus funders have to rely on entrepreneurs' self-disclosed information to measure the quality and risks of the projects (Moss, Neubaum & Meyskens, 2015). Furthermore, individual funders may not have the expertise or knowledge on projects listed on CF platforms, nor do they have the resources to conduct a thorough and systematic review on entrepreneurs or their ventures (Colombo, Franzoni, & Rossi-Lamastra, 2015). Moreover, the majority of CF platforms use reward-based model in which funders only receive products or services instead of stock ownership. Hence, there is no legal guarantee that the funded project will be completed, the product will be delivered on time, or even the raised funds will be used appropriately (Bruton, Khavul, Siegel, & Wright, 2015; Cholakova & Clarysse, 2015). As a result of the aforementioned concerns, potential CF funders may be discouraged by their inability to assess the project risk and a creator's competence and if any fraud activity may occur (Agrawal, Catalini, & Goldfarb, 2013).

1.3 Research questions

Three fundamental questions exist in CF. What can entrepreneurs do in order to successfully achieve their funding targets? What influences the behavior of the individuals who

provide the funding? What happens once the project reaches its target funding? In the limited literature to date, scholars have primarily regarded CF as a social behavior even though disagreement does exist (Allison, et al, 2015; Moss et al., 2015). Others used a free ride perspective and found that funders are motivated as donors because of social considerations (Boudreau, Jeppenssen, Reichstein and Rullani, 2015). This holds true even for reward-based CF. As noted by Belleflamme, Lambert and Schwienbacher (2011), CF can also be utilized as a promotional tool or as a way to test the feasibility of a product. Furthermore, Moss and colleagues (2015) discover that entrepreneurial orientation (e.g., innovativeness) matters more than virtuoso orientation. Therefore, the question arises: are CF funders donors, consumers, or investors? It is posited that there may be numerous motives as to why individuals provide money to projects. As a result, it is concluded that funders may be able to play all the roles.

While the CF research is limited due to its infancy, investigations into actual funders' behavior are even sparser. The majority of works have focused on the founder's side, either on the individuals posting the projects or the projects themselves. For instance, Mollick (2014) examined the effects of the founders' characteristics. Whereas Wu, Wang, and Li (2015) looked at how CF project characteristics impact CF success. Seeing as how founders cannot achieve success without the eventual decision makers (i.e. funders), it is important to examine the funder's side.

In the first essay I argue that founders utilize three types of signals to combat the information asymmetry that exists between founders and funders. These include product by way of innovativeness, mind through education and industry experience, and heart via entrepreneurial caring such as previous funding to others through CF platform and updates to the project. The first essay will include an empirical analysis of technology projects and how the aforementioned

signals are used by founders in order to acquire funds. It will also include a replication that analyzes if the funders are influenced by these signals. In the second essay I will focus on two areas, what influences funders to give and do they know what they are doing. Specifically, I will investigate which signals are most effective at identifying founders that deliver on their projects. I will conduct a survey of funders that investigates this and also sheds light into an area that has been completely neglected in CF research, whether funders know how to select successful entrepreneurs.

The next section will proceed by performing a detailed literature review of the CF research that has occurred to date. The literature review begins with an overview of CF. I then proceed to categorize the research into three themes, reasons to engage in CF; founders' perspective; and funders perspective.

CHAPTER II

Literature Review

2.1 Crowdfunding Overview

Valanciene and Jegeleviciute (2013, p.41) define CF as a "a method to establish the connection between entrepreneurs, who aim to raise capital, and novel investors, who form an emerging source of capital and are willing to invest small amounts, through internet-based intermediaries". The internet-based intermediaries refer to the CF platforms such as Kickstarter, Crowdfunder and other organizations that provide the environment for raising capital. On the CF platforms, there are mainly "founders" and "funders". "Founders' refer to individuals who seek funding for their projects, while 'funders' refer to individuals who provide financing for the projects (Mollick, 2014). The majority of these platforms operate on an all or nothing model in such a way that founders can get access to the funds only if the money raised is equal to or more than the founders funding target. Thus, it is critical to understand what determines the achievement of successful funding targets, which makes it of practical importance to entrepreneurs.

The unique characteristics of CF make it different with traditional financing options. First, CF has more potential investors than traditional funding. Usually, entrepreneurs are lacking information about the potential investors. However, entrepreneurs could do research about the potential investors in traditional financing. On the other hand, funders do not know about

founders either. Therefore, funders feel uncertain about the information that founders provide. This double unknown creates information asymmetry between founders and funders (Moss et al., 2015). Second, founders could reward funders in different forms, which is more than the traditional financing. In traditional financing, paying interest and principle is the main form. CF could be lending based, equity based, donation based, and reward based (Cholakova and Clarysse, 2015; Schwienbacher and Larralde, 2010). Both extrinsic and intrinsic intentions motivate funders to pay attention to products and social intention (Allison et al., 2015).

Third, internet communication between founders and funders creates information asymmetry between them. Hence information asymmetry arises. On one hand, "the entrepreneur might be even more reluctant to disclose information to this type of investors, due to their number and lack of professionalism. Idea stealing may further be particularly strong here, since the entrepreneur needs to disclose sensible information to a wider audience than under traditional forms of fundraising" (Schwienbacher and Larralde, 2010, p.10). On the other hand, the funders make decisions about supporting or not, based on information uncertainty. Unfortunately, inside information about the integrity and characters of the entrepreneurs and their opportunities are not available (Moss et al., 2015). Crowdfunders can only access the information on the website, most of the time, the project founders' narratives (Allison et al., 2015). In addition, while traditional financing may seek regulations and law enforcement to help protect the investors' interest, CF does not have such mechanism to do so. This requires the founders to find ways to reduce such asymmetry. Thus, CF may present a bi-lateral asymmetry problem while entrepreneurs seeking traditional financing have access to information about financers and can conduct research about them. Therefore, a bundle of *uncertainty* is present. Fourth, CF funders may only rely on emotion and passion when making decision about supporting (Chen et al., 2009). However,

traditional funders may have more solid information, which can help them make decisions. Here below is the summary of the differences between traditional financing and CF.

Table 2.1. Summary of Traditional Financing and Crowdfunding

	Traditional financing		*Crowdfunding*	
	Characteristics	*Information*	*Characteristics*	*Information*
Number of investors	Small	Detailed	Large	Unknown
Return/reward	Financial	Whole plan	Equity/product/none	Product/social
Communication	Personal	Real	Website (platform)	Uncertain
Funding criteria	5 Cs (character et al.)	Rational	Web presentation	Passion

2.2 Types of Crowdfunding

There are four types of CF identified in previous research (Mollick, 2014). They include: (1) patronage or donation based, (2) lending based, (3) reward based, and (4) equity based. Donation based platforms operate in a philanthropic manner in which money is given without the expectation of any form of return. Lending based platforms are similar to micro-lending models in which funds are offered as a loan with the expectation of some rate of return on the money invested. Reward based platforms are by far the most popular form of CF (Crowdsourcing.org, 2012) and are characterized by the funders receiving some type of special reward based on the amount of capital they provide to the project. Finally, equity-based platforms provide funders with equity stakes or similar considerations based on their levels of funding; however, this form of CF is still limited due the regulatory environment.

2.3 Crowdfunding Process

The CF process has been broken up into three stages of activities that take place with regards to the funding campaign. In the context of CF, the campaign is the time period when the project is visible on the CF platform and is eligible to accept donations (Hui, et al., 2012, p. 4). These stages include activity (1) before, (2) during and (3) after the campaign. Understanding the opportunities and responsibilities involved with CF and preparing the campaign material are associated with the "before" stage. Testing the campaign material and initial prototypes along with marketing the project are characteristics of the "during" stage. Finally, executing project goals and contributing knowledge back to the CF community are the activities associated with the "after" stage (Hui, et al., 2012). A recent CNN article focusing on 10 technologies that are changing the world showcases the founder of Oculus Rift, a head mounted virtual-reality (VR) device designed specifically with gaming in mind, highlights the CF process (CNN, 2013 November). Palmer Luckey, a 20-year old engineer at the University of Southern California's Institute for Creative Technologies established Oculus Rift after not being able to find cool VR technology he could use to play games. He began by purchasing old VR products in order to learn more about them. After learning what he needed he proceeded to launch a Kickstarter campaign to raise $250,000 in order to develop a few hundred headsets. The campaign met its goal in four hours and by the end had raised nearly $2.5 million. One reason for the campaign's success may be attributed to the fact that gaming legend John Carmack (E.g. Doom, Quake, Rage, and Wolfenstein 3D) was one of the first advocates of Oculus Rift. The developer versions of the headsets are currently being sold for $300 and Carmack serves as the chief technology officer for Oculus Rift. This example illustrates how a technology entrepreneur can utilize the CF process to exploit his/her idea.

In summary, entrepreneurs that seek to exploit an opportunity using CF platforms play the role of founders and submit their projects for funding to the masses, which play the role of funders in the process. During the CF process founders perform various activities during the three stages of their funding campaign in order to exploit the opportunity they seek by reaching their funding goals and meeting the expectations of the project's goals and rewards.

2.4 Crowdfunding Research

2.4.1 Determining Reasons for Engaging in Crowdfunding – Why participate?

When reviewing the CF literature, three themes begin to emerge. The first takes a look at the CF phenomenon from a high level. The primary focus in this first theme of research is exploratory in nature and it takes a look at CF as a whole. Consequently, the articles that make up this theme begin by defining CF and move towards identifying the reasons for engaging in CF.

You cannot begin to tell the story of CF without discussing Belleflamme, Lambert & Schwienbacher (2011) seminal publication that helped lay the foundation for CF research. It is currently the second most cited CF paper next to Mollick (2014) exploratory study. The significance of Belleflamme et al., (2011) is momentous due to the fact that they provided one of the first and now most commonly used definitions of CF. By building off of the concept of crowdsourcing, they define it as follows, "Crowdfunding involves an open call, mostly through the internet, for the provision of financial resources either in the form of donation or in exchange for the future product or some form of reward to support initiatives for specific purposes (Belleflamme et al., 2011, p.5).

This study focuses on the role information plays in CF. Using econometric forecasting they develop an equilibrium model that associates CF with pre-ordering and price discrimination and investigate the circumstances under which CF is favored to traditional forms of external financing. The authors identify three recurring characteristics of CF, pre-ordering or advance purchase of a product, higher cost to those who pre-order, and the feeling of being a part of a privileged community of individuals who participated in the advance purchase. Accordingly, the study notes the existence of information asymmetry in the manner of the quality of the product not yet being known to consumers/funders as well as the risk of entrepreneurs/founders' potential of running off with the funds and never developing the product. Thus, they argue that there must be a level of trust by the funders otherwise CF would not work.

Consequently, the most notable finding of the study is in what way the flow of information between founders and funders is affected by CF. Other interesting insights include how "CF can be used as a promotion device, as a means to support mass customization or user-based innovation, or as a way for the producer to gain a better knowledge of the preferences of the consumer" (Belleflamme et al., 2011, p.26). Moreover, CF is an innovative tool useful in validating entrepreneurs' original ideas by targeting a specific audience. Finally, the authors posit that funders participate in CF because they enjoy the exclusive benefits offered by the campaign or that they care about their social reputation within the crowd.

While, this study provides a great deal of insight into CF, it is not without its limitations first of all it is primarily theoretical and does not utilize any actual founder, funder, nor CF platform data to make its case. Another is the assumption it makes in that funders are not able to determine the quality of a project in CF due to the fact that they propose a monopolist is marketing the product. Moreover, it assumes equilibrium can be met meaning that the founders

would have to know the true cost involved in developing their product. This is difficult for any entrepreneur as there are always additional costs that were not anticipated despite ones best laid plans. Thus, an empirical study is warranted. Accordingly, two of the authors go on to develop what is perceived to be the first empirical analysis of CF.

Whereas, early CF research had been limited to case studies (Ordanini et al., 2011; Gerber et al., 2012), Lambert & Schwienbacher (2010) sought out to empirically investigate what are some of the determinants of successful CF, in particular the characteristics of successfully funded projects. The study attempts to answer various questions pertaining to CF including, what affects the chances of success; what drives funders to participate; and are voting rights or rewards more likely to be a part of a successful campaign.

The authors focused on crowdfunded ventures and projects, which excluded artists' initiatives. The sample collection took place between the end of 2009 and early 2010. Using the Internet, they identified 88 campaigns and determined that 51 provided sufficient information to include in the study. They proceeded to send questionnaires to the entrepreneurs whose emails they could identify, of which 69 were contacted and 21 completed the survey. It is important to note that these efforts were pretty admirable considering that at the time of data collection, many of the CF platforms were either in their infancy or did not yet exist. For example, the most prominent platform Kickstarter had just launched in April of 2009.

By reaching out to founders, this study determined some of the first characteristics of what successful CF projects possessed as well as provided some interesting findings. For example, the majority of funds provided were donation or reward based rather than equity based. For founders besides raising capital, the main reason to participate in CF was to generate hype around their product. Moreover, CF provided founders a great way of obtaining feedback

regarding their venture. They also found that projects centered on products rather than services garnered larger amounts of capital. Probably the main finding of this study is that not-for-profits are more likely to reach their goals successfully than for-profit or project-based initiatives. Consequently, the authors state, "trust-building is an essential ingredient for any successful Crowdfunding initiative" (Lambert & Schwienbacher, 2010, p. 12). This seems to insinuate that not-for-profits may be viewed as more trustworthy than for-profits as they are not focused on maximizing revenue. Additionally, it could be more appealing to a funder in that it also provides an extra incentive as a tax deduction. However, the motivations of funders are assumed.

Thus, one of the limitations of the study is that it only investigates CF from a project perspective. It is mainly concerned with the projects themselves. Despite its focus on the projects, the authors do not attempt to differentiate the types of projects or identify a type of project that would be relevant to focus on. For example, the finding that non-profits are more likely to be successful in reaching their goal could be questioned. For instance, the for-profit projects could be considered disruptive to the funders in that they do not possess enough experience to understand the offering. Moreover, the characteristics they identify could be viewed more like demographics rather than specific traits. Hence, the authors in new research take a deeper examination into what other factors may be influencing CF.

Armin Schwienbacher and Benjamin Larralde are significant contributors to early CF research. There works helped provide others direction of further investigations yet to come. In Schwienbacher and Larralde (2010) they specifically look at the factors influencing the use of CF including: the lack of pre-existing resources; risk, moral hazard and information asymmetry; organizational form; control preferences; amounts required by entrepreneurs; legal issues regarding equity issuance and multiple investors; and the wisdom of the crowd.

With regards to the lack of pre-existing resources, the fact is that founders are seeking funding for their particular project in order to bring it to fruition. Simply stated is if they had the funds available, they may not need to engage in CF. As such, the risk, moral hazard and information asymmetry are more pronounced. For instance, funders are not specialists and thus have less expertise and information about the industry, past performance of the founder. Moreover, the founder may be reluctant to disclose too much information due to the inexperience of the funders or for fear of 'idea stealing'. The organizational form has been shown to influence CF as noted in their earlier work, not-for-profits are more likely to meet their funding goals in CF (Lambert and Schwienbacher, 2010). An additional influencing factor in CF is the control preferences or whether or not funders should be able to provide input or possess decision-making ability with regards to the management of the founder company. Consequently, the amounts required by the founders can influence whether or not they should be willing to cede any control over their project or company. Small amounts may be negligible, whereas large amounts may require a stake in the project. As such there are legal issues regarding equity issuance and multiple investors. This is something that is difficult to overcome due to current regulations as well as varying jurisdictions where not only do different states differ in their laws, but countries as well. Finally, the wisdom of the crowd makes the argument that a crowd can at times be more efficient than individuals or teams in solving corporate problems, hence funders would be more efficient than a few equity investors alone (Schwienbacher and Larralde, 2010, p. 12).

Three business models of CF ventures and platforms are proposed. The first is simply donations or charity. Next is passive investments, where funders to do not participate in the initiative nor have any input. In this case founders are more likely using CF as a method to presell their product. Finally, active investments are those in which the crowd is sought out to

actively participate in the initiative by providing valuable feedback to the founder on the potential demand and product characteristics.

A few conclusions are suggested as to when it makes sense for small entrepreneur ventures to utilize CF rather than traditional forms of financing. These include the need to raise a reasonably low amount of capital; possessing something innovative or interesting to offer; and the willingness or necessity to accept funders' opinions. Thus, CF is a viable tool to obtain financing for nascent and small entrepreneurs. The findings and conclusions proposed continue to add more dimensions into the understanding of CF. However, there is yet to be any literature that takes a look what role the founders or funders play in CF.

Whereas the early CF research concentrated on the reasons for engaging in CF and what factors are associated with successful campaigns by primarily taking a project perspective, Agrawal et al., (2011) begin to delve deeper into the exploration of CF by taking a look at the funder's behavior. Utilizing an equity-based CF platform (Sellaband) based in Amsterdam they look at the role that geography/proximity of funders to a project plays in their funding behavior of early stage entrepreneurial ventures. The platform allows bands to raise money to finance their album by tapping into the crowd.

CF provides the opportunity to for funders to participate (e.g. fund) in a founder's project regardless of location. For example, the authors find that the average distance between artists and investors in their sample is approximately 3000 miles insinuating that distance does not play much of a role in funder behavior. However, a deeper investigation into the matter suggests otherwise.

Using an econometric analysis, they find that while the geographic distance of the funders is diverse, distance plays a significant role in the timing of the funding. They also find

that local investors are less responsive to the actions of others and thus they end up investing early in the campaign compared to those that are not local. This highlights the importance that friends and family play in the early stages of the CF investment process. Moreover, being able to have that early support from those first investors provides a signal of entrepreneurial commitment to those who may not have a personal connection with the artist-entrepreneur. Additionally, they note that the propensity to invest by distant investors increases as the entrepreneur accumulates capital. Furthermore, the study identifies that as the project gets closer to meeting the $50,000 (minimum threshold required by Sellaband in order to receive funds), investments into the project accelerate.

This study provided some of the first insight into the behaviors of funders in a CF platform. Although the findings are of great interest, they are limited by various factors. First off, the CF platform utilized for the data set is relatively small resulting in only 34 cases that were analyzed. The authors do make a case that the 34 cases make up the majority of the funds raised on Sellaband. Still this is disappointing as there were a total of 4,712 cases during their identified timeframe. This signifies less than one percent of the available population. Consequently, one must wonder how the study would be affected by utilizing more cases. It appears that the 34 cases already had a stronger following than those who did not meet the $50,000 threshold. You could argue that these bands are not as nascent as the others and could be seen as less of an early stage venture than the rest. Hence, bands with a greater following might be considered less risky. The challenge here is that the findings and assumptions are made based on secondary data as observed by the investment timing of funders. Furthermore, it would be beneficial to investigate the agency dynamics at play in CF.

While, Agrawal et al., (2011) provided a new focus and investigated funders, they only looked at their funding behavior in terms of when they provided funding throughout the campaign. They did not actually interview any of the funders themselves. In their study Ley and Weaven (2011) select experienced venture capitalists in Australia and conduct a series of convergent interviews in order to garner their perspective of equity-based CF. Specifically, they seek to investigate the agency dynamics that are involved in CF. This dynamic consists of two parties (principals and agents), the managing of information asymmetry as well as moral hazard and adverse selection (Eisenhardt, 1989; Fama, 1980; Fama & Jensen, 1983; Jensen & Meckling, 1976; Ross, 1973). This is an exploratory study that seeks to get information directly from individuals who are poised to provide funding for equity-based CF. Ultimately, they attempt to determine what types of startups would be suitable for CF.

The authors categorize their findings into four sections with each highlighting the agency dynamics at a particular stage of the investment process. The first section looks at 'investor specific factors' where they discuss the theme that emerges from the interviews with the selected venture capitalists. The interviewees cite the need for the crowd to be comprised of an informed group of investors. The argument is that if the crowd is not made up of informed investors then the credibility of the projects would be lacking because it would be considered some sort of lower form / second-tier type of financing.

They proceed to discuss 'ex-ante investment factors' which consists of four sub-categories: deal screening; deal referrals; information sensitivity; and due diligence. The interviews identify the venture capitalist argument that CF would require a specific deal screening criteria that restricted incumbent access to Crowdfunding so as to minimize agency costs associated with adverse selection problems (p.95). Essentially, the crowd would only be

privy to deals in which they have the appropriate knowledge, skills and or expertise to participate in. This would reduce any advantages an investor would have over one who is inexperienced. Furthermore, they argue that the deals that are being considered are dependent on a system in which they are provided by a trusted external network. This means that the deals that make it to funding consideration would have to at least be thought of being 'worthy enough' to receive funding. The interviewees proceed to discuss two more ex-ante investment factors needed to be present for them to be willing to invest. These include the sensitivity of the information regarding the deal and the due diligence provisions that must be implemented prior to funding. They argue that in order for an equity-based CF model to work, sensitive information should not be required from the founders as well as the due diligence provisions must not be complex.

Next comes the five 'ex-post investment factors', which include: contractual rights; board representation; value adding capability; limited economic life and exit options. The findings indicate that equity-based CF would only work if there were an external intermediary that acts on behalf of the crowd in order to maintain efficiencies. This external intermediary would manage / represent the contractual rights, board representation, and value adding capabilities that are provided from a traditional venture capitalist. The thought here is that allowing for the crowd to each have a role in these factors would not be efficient and would cause various problems. Moreover, they argue that projects that require follow on or future rounds of funding would not be suitable for CF as well as those that cannot reach an exit funding option quickly.

The final finding from the interviews conducted deals with the contribution of Crowdfunding to the innovation process. There was a consensus among all the interviewees that the new pool of funding that would be able to be accessed from CF would provide a positive impact to the firm. However, they argue that it would not enable firm-level innovation due to the

fact that founders have to expose their idea to a broad base of participants and thus the loss of confidentiality of an idea destroys the element of innovation that can be monetized over time (p. 102). Moreover, the findings indicated that CF would not be appropriate as a basis for continued innovation and seeking investment and returns, but it may be appropriate for one-off events.

As noted by the authors, this study provides the first criteria in identifying appropriate startups for CF. Of significance they note three specific characteristics that if possessed by a startup would not make them an ideal candidate for CF. These include: a high level of sensitivity; complex due diligence requirements, and a long duration before an available exit. While this study provides the first insight into the motivations of funders, it is severely limited in that the authors' only interview experienced venture capitalists. This is a major problem because the disruptive nature of CF is lost on those who are traditional investors or in this case the venture capitalists interviewed. The prism in which they view CF is biased by their prior experiences. In order to become a venture capitalist, one has developed and honed their investment skills over time. I would argue that the entire purpose of CF and being able to tap into the crowd is that they are unpredictable and may not act in a rational manner as a traditional investor would. Furthermore, as has been previously noted the reason founders seek out CF as a vehicle to fund their ventures is because they are not able to raise funds from the traditional forms of finance (Lambert & Schwienbacher, 2010; Belleflamme, Lambert & Schwienbacher, 2014). Moreover, venture capitalists are seeking a return on their investment and as such will scrutinize a project accordingly. Funders who are not seasoned professionals that engage in CF may not necessarily have the return on investment as the highest priority in their funding decision. They may be looking at the project as both an investor and consumer. Consequently, they may be more concerned in funding a project so that they are able to purchase the product

being proposed rather than being concerned if the entrepreneur is successful over time. Thus, the funding characteristics of the overall crowd cannot be generalized by the findings from interviews with venture capitalists.

Fittingly, Ordanini, Miceli, Pizzetti, & Parasuraman (2011) provide an analysis about investor behavior in CF platforms, potential determinants of such behavior, and variations in behavior determinants across different platforms (p.4). In their study they employ a grounded theory approach and perform a case-study analysis on three CF platforms. They aim to attempt to answer what are the motivations and roles of consumers participating in CF and the objectives and roles played by CF platforms. The authors identify three types of CF platforms: those with high levels of risk with material payoffs; those with low-to-medium risk that include a broader set of payoffs including emotional rewards; and those with little or no risk where funders only expect non-material payoff. Next they proceed to identify a CF platform for each of the types they categorized. These platforms are Trampoline, which represents the high risk; SellaBand, which represents the low-to-medium risk; and Kapipal, which represents the little to no risk.

Utilizing a series of interviews with the managers of the CF platforms the authors produce some interesting findings. First, they focus on the funders' motivations across the various platforms. They note that funders on SellaBand are not only consumers who purchase the artist's music, but also act as agents of the band in the sense that they are the ones who discovered the artist thus making them 'part of the whole thing' (p. 21). For the Kapipal platform, the manager calls the motivation the 'participation spirit', where funders are motivated by their desire to take part in something that helps another's cause. Moreover, the funders have a strong sense of belongingness to the initiative and get satisfaction from the sense that the project is achieved thanks to their contribution (p. 22). In terms of the Trampoline platform, the

motivation is derived from the novelty of participating in CF but is mainly focused on realizing a monetary return on their investment.

With regards to the reason funders participate in CF the authors note that they vary across platforms and include enjoying engaging in innovative behavior; social networking experience; and economic exploitation. One of the interviewee's calls the funders "experience investors". Furthermore, they cite how funders in SellaBand are believers and agents acting on behalf of the band by selecting and promoting those artists they are passionate about.

Another interesting finding is the identification of three phases of the investment process during a project campaign. The first phase is referred to the 'friend-funding' stage in which those that are directly connected to the founder quickly provide funding where it starts off quick and reaches nearly half of the target. The second phase is known as the 'getting the crowd' and is the most delicate phase because there are a lot of projects that never get past it. In this phase the founder must gather funding from beyond their network by utilizing the existing funding as a catalyst for further funding. If successful they call this the 'engagement moment', which triggers a chain reaction and facilitates rapid growth toward the investment target (p. 26). Following the engagement moment the final funding stage begins, which they refer to as the 'race to be in' stage. This is when funders hurry to provide funding before the opportunity to do so is lost to them and they are not able to participate in the project and are left out.

Finally, the remaining findings include a focus on the CF platforms themselves and what their purpose. In the case of Kapipal, they are an intermediary that provides a tool for founders to raise funds for personal reasons by acting as a 'social gatekeeper' and allowing founders to exploit their social network connections. For SellaBand, they provide an alternative to the traditional music industry by 'offering a bridge between the supply and demand of music' (p.

28). In terms of Trampoline, CF 'helps supply and demand to disintermediate the venture capital market, rather than merely substituting the traditional intermediaries' (p. 30).

Ordanini et al., (2011) study provides great insight into the potential motivations of funders and their behavior. However, this study is limited in that in order to ascertain these insights, they went about it by interviewing the managers of the CF platforms. Certainly, the managers must be in tune with the consumers of their service, otherwise their platforms would not be in business. Nonetheless, they are essentially making assumptions as to what the actual motivations of those participating are. Without actually surveying the individual funders, one cannot clearly determine the motivations. Furthermore, while they essentially looked at equity, reward, and donation-based CF, they did not attempt to include lending-based CF. Moreover, they do not bother to distinguish between projects that reach their target funding and those that do not. Would the findings hold true for both?

Another study that delves into the motivations of funders is an exploratory study developed by Gerber, Hui, & Kuo (2012). In this study they interview eleven informants that have either funded projects, posted projects, or both. Here the authors actually get to speak directly to individuals who actually provided funding and are able to ascertain certain motivations possessed by them. They begin by identifying the reasons founders participate. Consistent with the earlier studies mentioned above, they identify the need to raise funds as the most significant. They proceed to note other reasons as: developing long-term relationships with funders that allow for the projects to be interactive; the ability to receive validation of their project based on the public recognition received; being able to replicate the successful experience of others by inspiring others to participate in CF; and expanding the awareness of their work through social media by the coverage and buzz they received from their project.

With regards to the interviews with the funders, the main interest in funding a project is the ability to receive rewards. The authors note that ‘’funders refer to the transaction as ‘buying’, ‘getting’, and ‘giving’” (p. 6). This is very much a transaction but is typically longer than what it would take in the normal marketplace. In many cases the funders are essentially pre-purchasing the product before it has been developed. Another motivation is the need to support creators and causes. As noted by one interviewee,

> “*I fund an idea that I think is really neat, but I also really like the idea of people being able to get off the ground without needing to buy into a big giant corporate structure, and I like the way that people put the ideas they want out instead of having to compromise those ideas in order to get their product out” (p. 7).*

Moreover, the funders also give to projects in order to engage and contribute a trusting and creative community. Interviewees noted motivations such as: being part of a community of creative; being involved or engaged in the project; ability to be collaborative; and the feeling of goodwill received from providing funding.

This study finally provides direct insight from actual funders of projects in CF. However; the study is greatly limited by the number of interviews performed. While the qualitative approach identified three motivating factors of funders, it is not much of a sample. Only eight of the eleven interviewees had provided funding. This study amounts to not much more than a focus group. It also lacks in that it does not address the types of projects the funders are giving to nor how they go about selecting the projects. For instance, did the funders have a direct connection to the founder as suggested in other works? Furthermore, they are completely silent on the amount of funding the individuals provide. Could the amount of being requested influence their

motivation to give? Moreover, how does the presence of information asymmetry influence the motivations of funders?

As the research stream of CF is beginning to grow, Giudici, Nava, Rossi Lamastra & Verecondo (2012) provide a systematization of what it is currently known on this theme at the time. The authors suggest that the CF literature would still be considered to be in an embryonic state. They note the works of Lambert and Schwienbacher (2010) and Agrawal et al., (2011) who investigate the determinants of successful CF and the reasons for participating in CF (e.g. shortage of capital). They also cite the works of Belleflamme et al., (2011) and Gerber et al., (2012) who seek to understand the motivations of funders. They proceed to survey the CF environment across Italy; specifically, the various platforms that exist (at the time). Notably they assume that the efficiency of crowds in selecting promising projects increases with the heterogeneity of the public (p. 11). This is an interesting note because it suggests that the CF environment may self-regulate itself. However, they still note that CF is characterized by information asymmetries and moral hazard problems. The question remains whether or not the crowd can be more effective at dealing with these issues than traditional investors.

Unfortunately, the article only provides a very brief snapshot of the literature at the time. Aside from performing a survey on the Italian CF platforms, they do not offer anything novel. Rather they reach a consensus with other works as to why individuals both participate in and fund projects. An area that could have made this study more interesting would have been if the authors investigated the types of individuals that engaged the various platforms. For instance, would there be a particular type of profile for both funders and founders? Do certain types of projects perform better on different platforms? Are there any limitations between certain platforms?

Another paper that attempts to offer a literature review and research agenda is Lehner (2012). After summarizing the early works to date, the author concurs with previously mentioned studies in that CF is a good financing vehicle for social entrepreneurs and that it can provide additional legitimacy to the venture. Where this article excels is in that it identifies eight themes that are proposed as a research agenda.

The first theme focuses on the types of and utility functions of crowd investors. The author suggests the need for a greater typology to understand the types of investors in CF. Especially since the differences between crowd consumers and investors in CF are often marginal (p. 15). Moreover, he proposes to look into motivational factors, such as financial reward systems or personal involvement because while one may be positive, the other could have a negative effect. Finally, Lehner (2012) recommends that future researchers should investigate the perspective of the crowd as an emancipated entity, as well as on the individual members and their motivations stemming from the psychological to the economical (p. 15).

The next theme looks at opportunity recognition and matchmaking. This is a particularly interesting theme as it is core of venture creation and has even been argued to be the foundation of entrepreneurship in general (Short, Ketchen, Shook, & Ireland, 2010). Lehner notes how in CF not only do the entrepreneurs have to identify an opportunity, but also the crowd has to recognize and evaluate it (p. 16). Moreover, in CF these need to be communicated to a larger number of diverse individuals, using various tools and strategies. Consequently, as I previously posited, do certain platforms allow for better opportunity recognition?

He proceeds with themes on business models and corporate governance along with information economics, reporting and risk. In terms of the business models and corporate governance he notes the difficulty of including the crowd in traditional decision-making

processes. Lehner suggests that communication means and forms must be adapted accordingly. Furthermore, the different laws across countries will affect how individuals and entities participate in CF. Therefore, it is important to investigate whether or not findings hold true or vary amongst the different countries. With respect to information economics, reporting and risk, Lehner notes how platforms such as Kickstarter have evolved and are slowly taking over the role of financial intermediaries. Thus, research into the role of risk and information dispersion are important as how reporting will take place in these platforms is still unclear.

Networking and the role of platforms is the following theme. The author believes that CF will provide a useful environment to investigate under the lens of networking theory. For instance, examining the role of CF platforms in order to determine if they are amplifiers and mediators, creating quasi super-nodes, as well as of the ties, ruled and regulated by payment providers (p. 18). Moreover, the theme of discourse and legitimacy of CF is to be further explored. Specifically, he cites the need for it to be interdisciplinary borrowing from the domains of sociology and psychology to politics, law, communications and business.

The final two themes are challenging finance metrics and instruments in a CF environment along with legal and regulatory perspectives in CF. The first deals with looking into whether or not long-established metrics are relevant in CF. Lehner notes whether they would be used as a decision-making tool or rather used to maintain some form or rationalization after the investment is made. Do these tools help predict investment decisions in CF? Finally, in terms of legal and regulatory perspectives in CF, this theme discusses the need to investigate the ramifications of the JOBS Act as well as the CF platforms themselves, with their perceived fiduciary responsibilities.

Lehner (2012) provides a good review of the CF literature to date as well as suggestions on what areas of further study future research should take on. Of particular interest are the themes of opportunity recognition and matchmaking along with networking and the role of platforms. Many investigations have looked at the two characters in CF the founders and the funders. However, the review brings the CF platforms to prominence by introducing them as a third character. As the platforms become more prominent does their influence change over time? For example, is opportunity recognition hurt by the popularity of a platform? One of the reasons cited that individuals participate in CF is due to the fact that it is novel and innovative. As it becomes more commonplace, does the pendulum swing back towards exclusivity? Causing platforms to not be open to everyone or developing levels of membership.

The prominence of the CF platforms is noted in the work of Agrawal, Catalini & Goldfarb (2013). The authors note the three primary actors of the CF market as creators, funders, and platforms. They begin by identifying the incentives to each of the actors in CF. For creators the incentives include: lower cost of capital; better matches of individuals with the highest willingness to pay for their venture; bundling or allowing creators to sell goods that are otherwise difficult to trade in traditional markets for early-stage capital; and information in how the crowd can validate a project by supporting it as well as serve as an informative type of marketing research. With regards to the funders, their incentives include access to investment opportunities; early access to new products; community participation; support for a product service, or idea; and formalization of contracts as in how the CF platforms serve as an intermediary and formalize what would otherwise be informal finance. Finally, the incentives for the platforms themselves are to make a profit as they traditionally charge a 4-5% fee of the total

funding amount. Thus, it is in their best interest to maximize the number and size of successful projects.

While the incentives exist for the actors, so do disincentives. For instance, creators are susceptible in the disclosure requirement wherein they must make everything allowable for public consumption, which could affect their ability to patent a technology, expose their idea to a better-equipped competitor, or lose leverage when negotiating with suppliers. Furthermore, CF does not provide the additional benefits brought on by angel investors and VCs such as industry knowledge, relationships, and status. Moreover, having a greater number of funders may make the investor management difficult. Finally, opening up investment to the crowd does not allow for a founder to control who funds his or her project. Meaning that there is no way to prevent individuals with strong personalities and differing visions from adversely affecting the community's dialogue (p. 17). With regards to funders disincentives they include, creator incompetence, fraud, and project risk. For example, creators may be overly optimistic in being able to actually deliver on their promises and may become overwhelmed if inundated with too many orders. Moreover, the risk for creating fraudulent pages that look authentic is clear making the platforms appealing for professional criminals. Finally, early stage projects are inherently risky with a significant chance of failure.

The authors move on to discuss how the disincentives they identify could lead to a failure of CF mainly due to the information related market failures of adverse selection, moral hazard, and collective action. They argue however that certain CF market designs may allow for the reduction of the information asymmetry problems that arise in CF. These characteristics are broken into four categories and include reputation signaling, rules and regulation, crowd due diligence, and provision point mechanism.

With regards to reputation signaling founders can utilize quality signals to leverage brand reputation. The platforms also provide a feedback system that allows for the funders to interact with founders and submit feedback on the projects. Finally, the platforms themselves serve as trustworthy intermediaries in that it is in their best interest to ensure the quality of projects available. Thus, they attempt to lower the risk by closely monitoring any potential issues of fraud.

In terms of rules and regulations there are two focuses, the platform rules along with industry regulation. As the number of users increase, the platforms must continually update their rules in order to combat issues that may arise with the focus on maintaining their credibility. Moreover, the regulations that have been implemented by the Securities and Exchange Commission (SEC) as a result of the JOBS Act were put in place to combat the information asymmetries that exist.

With regards to crowd due diligence, while the crowd may be disadvantaged when compared to traditional investors, the greater amount of people involved provides the opportunity for the crowd to notice if something wrong. Finally, the provision point mechanism serves to further regulate any inappropriate behavior by setting a threshold that must be met before any funds are distributed. Essentially this is the all or nothing funding model. While not all platforms incorporate it, the ones that due provide an extra level of mitigating risk.

In this study the authors deconstruct the economics of CF. In doing so they underscore the degree to which economic theory, in particular transaction costs, reputation, and market design, can explain the rise of non-equity CF and propose a context for contemplating how equity-based CF may work. While the article does a good job at analyzing the three actors in CF, it does not offer up any empirical evidence nor does it attempt to delve into the characteristics of

founders or funders. For instance, do experienced entrepreneurs have a greater chance of successfully funding their campaigns? Moreover, they discuss the use of quality signals, but fail to address how funders respond to them.

While, Agrawal et al., (2013) proposed a context for contemplating how equity-based CF may work, Ahlers, Cumming, Gunther & Schweizer (2015) move the research forward by empirically investigating the effects of signals in equity-based CF. Under the lens of signaling theory they attempt to explain success of equity-based CF, in particular which startup signals are most likely to induce small investors to commit financial resources in an equity CF context (p. 3). Utilizing a sample gathered from the Australian Small Scale Offerings Board (ASSOB) the authors examine 104 offerings. Specifically, they assess data on the number of funders per project, the quantity of money collected, and the rate (measured by the length of time) at which the funds were collected in order to comprehend the significance of the various signals of possible project quality.

As noted by many of the previously discussed studies above, the authors suggest that in order to combat the information asymmetries that exist, founders offer signals of quality to differentiate themselves from other offerings which would explain the reasons for some projects obtaining their financing while others do not. The study confirms the fact that signaling plays a vital part in the investment decision for investors. Individuals seeking to invest in projects offered by the ASSOB are able to view a detailed offering overview of the projects of which they are interested in. Each project is characterized by the same 10 characteristics including: key investment highlights, milestones achieved to date, letter from the managing director, business model, market analysis, financial projections, purpose of the capital-raising, offering details,

ownership structure, and descriptions of the management team and external board members (p. 12).

The findings indicated that the signals of quality that were associated with achieving funding success included: providing a capital roadmap or a preplanned exit strategy such as an IPO or acquisition, with IPOs having the most significance. Additionally, board experience was positively related to funding success specifically, as measured by the percentage of members that hold an MBA degree along with the higher number of board members in the company. Interestingly the evidence of external certifications such as awards, government grants and patents were not shown to be a significant signal. Moreover, the number of staff or non-executive directors that are a part of the company nor the number of years the startup has been in business had any effect on funding success. In contrast to the signals that had a positive association with funding success, it was found that startups that did not provide financial forecasts nor disclaimers were actually negatively impacted by tending to raise less capital overall and taking longer to do so. Finally, with regards to the rate or speed of investment as measured by the time it took for the company to meet its goal, certain signals also had a negative effect. For example, the perceived risk level of the startup, which was measured by the percentages of equity offered along with the low amount of information provided by the founders were both found to require a greater amount of time for a startup to reach its funding targets.

The study extends the signaling theory research further by exploring its effects within the context of CF. While, the results of this study are quite interesting and appear to confirm previous theories proposed by signaling theory scholars (Connelly et al., 2011) it is not without its limitations. For example, it only focuses on equity-based CF. Furthermore, the funders that take part must meet a specific criteria in order to participate in the funding. Consequently, the

findings may not hold true due to the fact that not everyone is allowed to participate. Meaning that individuals must meet a certain level of qualifications before being allowed to participate. While, they may not be considered qualified investors, they may have an advantage over the majority of the population. The question remains whether or not these findings are applicable in other types of CF. Finally, it would be helpful if other theoretical lenses were applied to CF.

One investigation that looks at CF through a different theoretical lens is Beugre (2014). Utilizing institutional theory conceptual framework, the author interprets CF as a form of institutional entrepreneurship. Specifically, he explores the ability of CF to gain legitimacy as a new venture funding mechanism and what signal does a new venture send to the market when it participates in CF. Similar to Lehner (2012) the author notes the presences of three stakeholders in CF, the entrepreneur, the crowd, and the platform. He identifies only two types of CF, Ex Post Facto in which funding is provided in exchange for a product and Ex Ante where funding is provided to help achieve a mutually desired goal. With regards to the motivations of the crowd, they are categorized as either being psychological in that the funders are not necessarily interested in the tangible but rather the psychological rewards, or instrumental where funders expect to receive something tangible such as equity or a new product.

The author argues that CF occurs as a result of institutional failure because nascent firms cannot secure funding through traditional means and as such turn to CF as a means to finance their ventures. Consequently, CF disrupts the venture funding market by allowing individuals to use the crowd to fund their ventures (p.12). Interestingly, they cite how CF could be seen as an example of co-creation of value seeing how the funders are also a customer as well as it creates a form of equality between the funders and founders by way of information sharing. According to Beugre (2014), CF can provide signals to the environment in three ways: idea validation through

the successful funding by the crowd; as a means to proof out a business concept; and as an indicator of an entrepreneur's failure to secure traditional financing.

This article helps to reinforce the previous literature in discussing the reasons for engaging in CF as well as providing a different theoretical lens to look at CF through. However, aside from providing some minor new insights, it does not really extend the literature further. For instance, it does not shed any light as to why projects succeed or fail. Moreover, are there shared characteristics of projects or founders that are related to successful CF?

As previously mentioned, the first theme of CF research focused on the reasons for engaging in CF. The articles summarized above begin to shed light into the phenomenon, but only tell the beginning of the story. Accordingly, table 2.2 provides a list of the articles within this theme along with the key findings and limitations of each.

Table 2.2. Reasons for Engaging in Crowdfunding

Belleflamme, Lambert & Schwienbacher (2011)	Define CF; Identify existence of information asymmetry problem in CF; Can be used as a promotion device for founders; Can validate founder's ideas; Funders participate to enjoy exclusive benefits or because they care about their social reputation with the crowd	Purely theoretical; does not use any actual founder, funder, nor CF platform; Assumes a monopolist marketing the product; Assumes that an equilibrium point can be met
Lambert & Schwienbacher (2010)	Empirical; Surveyed founders; Mainly focused on projects; Characteristics of Successfully funded projects; Why founders participate (raise capital; generate buzz for product); most notable finding was that Not-for-profits appear to have an advantage in CF	Assumptions of Funders motivations are made; Do not differentiate between types of projects (e.g. music vs. technology); ignore founder characteristics
Schwienbacher & Larralde (2010)	The lack of pre-existing resources; risk, moral hazard and information asymmetry; organizational form; control preferences; amounts required by entrepreneurs; legal issues regarding equity issuance and multiple investors; and the wisdom of the crowd	Does not provide any perspective/insight into funders or founders
Agrawal, Catalini & Goldfarb (2011)	Distance plays a significant role in the timing of the funding; local investors invest early (family & friends); early support provides a signal of support to other investors	Data set only uses 34 projects; the cases (bands) selected appeared to have a stronger following than those that did not meet the $50K threshold; One could argue that they would not be considered nascent; Only look at funding behavior in terms of when funds were provided throughout the campaign

Ley & Weaven (2011)	Identify three specific characteristics that if possessed by a startup would not make them an ideal candidate for CF. These include: a high level of sensitivity; complex due diligence requirements, and a long duration before an available exit.	Severely limited by only interviewing experienced venture capitalists. This is a major problem because the disruptive nature of CF is lost on those who are traditional investors. The funding characteristics of the overall crowd cannot be generalized by the findings from interviews with venture capitalists.
Ordanini, Miceli, Pizzetti & Parasuraman (2011)	Provides insight into the motivations of funders and their behavior by interviewing the managers of three distinct CF platforms; Three phases of investment (1) Friend-Funding; (2) Getting the Crowd; (3) Engagement Moment	Utilize managers of CF platforms to determine motivations of funders; They do not try to distinguish between project types; Essentially, the managers are providing more of a profile of what they perceive the funders to be
Gerber, Hui, & Kuo (2012)	Three motivating factors for FUNDERS (1) ability to receive rewards; (2) the need to support creators and causes; (3) being a part of a community of creative; being involved or engaged in the project; ability to be collaborative; and feeling of goodwill received from providing funding	Only eight of the eleven interviewees had provided funding. This study amounts to not much more than a focus group. It also lacks in that it does not address the types of projects the funders are giving to nor how they go about selecting the projects.
Giudici, Nava, Rossi Lamastra & Verecondo (2012)	They survey CF environment across Italy (the CF platforms to date); "Efficiency of crowds in selecting promising projects increases with the heterogeneity of the public (p.11)" This suggests that CF may self-regulate itself	Only provides a very brief snapshot of the literature at the time. Aside from performing a survey on the Italian CF platforms, they do not offer anything novel. Rather they reach a consensus with other works as to why individuals both participate in and fund projects.
Lehner (2012)	Identifies eight themes that are proposed as a research agenda. Of particular interest are the themes of opportunity recognition and matchmaking along with networking and the role of platforms	There are not enough studies analyzed in order for it to be considered a proper review of the existing literature
Agrawal, Catalini & Goldfarb (2013)	Identify the various incentives to engage in CF for the founders, funders, and platforms; Also cite the disincentives for each.	While the article does a good job at analyzing the three actors in CF, it does not offer up any empirical evidence nor does it attempt to delve into the characteristics of founders or funders.
Beugre (2014)	CF occurs as a result of institutional failure; Disrupts venture funding market by tapping the crowd; Could be an example of co-creation since investor is also customer; Creates a form of equality between customers and entrepreneurs through information sharing.	The article reinforces the previous literature in discussing the reasons for engaging in CF; However, aside from providing some minor new insights, it does not really extend the literature further
Ahlers, Cumming, Gunther & Schweizer (2015)	Extends the signaling theory research further by exploring its effects within the context of CF. Signals of quality are associated with achieving funding success. The results appear to confirm previous theories proposed by signaling theory scholars (Connelly et al., 2011)	It only focuses on equity-based CF. Furthermore, the funders that take part must meet a specific criteria in order to participate in the funding. Consequently, the findings may not hold true due to the fact that not everyone is allowed to participate.

2.4.2 Engagement Theme Prosocial vs. Economic

A review of the engagement theme of the CF research indicates that the majority of the studies argued that CF is an economic phenomenon. Economic reasons to engage in CF include, the lack of pre-existing resources, having more control of the venture and tapping into the wisdom of the crowd. (Schwienbacher & Larralde, 2010; Beugre, 2014). Others indicate that non-profits are at an advantage (Lambert & Schwienbacher, 2010), whereas those with a high level of sensitivity, complex due diligence, and a long duration before an available exit would not be good candidates for CF (Ley & Weaven, 2011). Additionally, various incentives exist for both founders and backers to engage in CF, such as promotion of a device, presell a product, or validate an idea (Belleflamme, et al., 2011; Agrawal, et al., 2013) Moreover, some indicate that signals of quality like those of human and social capital are positively associated with acquiring funding in equity-based CF (Ahlers, et al., 2015).

The remaining research within the engagement theme suggest that backers are motivated by prosocial behavior (Ordanini, et al., 2011). These include support from local backers who give early to support projects (Agrawal, et al., 2011); the ability to receive rewards, support creators, be a part of a community and the feeling of goodwill received from providing funding (Gerber, et al., 2012). These are summarized in table 2.3.

This early stream of research paved the way and provided direction to the continued study of CF. Naturally, after determining the reasons why individuals engaged in CF, the next thing to focus on was the entrepreneurs or founders of the projects themselves. In the next section I will review the literature investigating founders.

Table 2.3. Engagement Theme; Economic vs. Prosocial

Economic	lack of pre-existing resources; control; wisdom of the crowd	Schwienbacher & Larralde 2010; Beugre, 2014
	+ non-profits - high level of sensitivity - complex due diligence - long duration before an available exit	Lambert & Schwienbacher 2010; Ley & Weaven, 2011
	promotion of device presell product validate an idea	Belleflamme, et al., 2011; Agrawal, et al., 2013
	+ quality signals (human and social capital)	Ahlers, et al., 2015
Prosocial	backers motivated by prosocial behavior	Ordanini, et al 2011
	+ distance influences role in timing of funding + local backers invest early (family/friends) + early backing signals support to others	Agrawal, et al., 2011
	+ ability to receive rewards + need to support creators and causes + being a part of a community/collaborative + feeling of goodwill received from funding	Gerber, et al., 2012

2.4.3 Investigating Founders

Now that the first theme has been clearly identified, it is time to move on towards the next two. The second theme is focused on the founders or the individuals who are proposing their projects on the various CF platforms. Consequently, as previously mentioned this is the first

side of the CF coin. The articles that comprise this theme begin to delve deeper into the CF phenomenon by exploring what characteristics are associated with acquiring funding from a founder's perspective.

For example, in his now seminal work Ethan Mollick (2014) provides insight into the underlying dynamics of the success and failure of projects in CF. Utilizing data from Kickstarter, Mollick identifies that signals of quality and the size of a founder's network are related to successful campaigns. Additionally, it is identified that among projects, failures happen by large amounts and successes by small amounts (p. 6). Other interesting findings include the role of geography in CF along with the ability of founders to fulfill their obligations to funders.

Mollick uses the following variables to execute his exploratory study: 1) project goal (dollar amount sought by founder); 2) funding level (percentage of a project's goal that is actually raised); 3) backers (number of individual funders per project); 4) pledge/backer (amount raised divided by number of backers); 5) Facebook friends of founders (number of friends possessed by founder at time of campaign); 6) category (film, dance, art, design and technology); 7) updates (number of posts by founder during campaign); 8) comments (number of posts by backers); and 9) duration (number of days of project campaign). As previously mentioned, the data indicates that when projects fail it is by large margins with the average pledges reaching only 10% of the funding goal for the majority of failed projects. Moreover, only 3% of failures were able to achieve at least 50% of their goal. In contrast the projects that achieved their goal, a quarter of them did so by a margin of 3% or less.

Mollick (2014) argues that factors that are attributed to success are projects that possess signals of quality, which he measures in three distinct forms. The first is by whether or not a project contains a video suggesting that the founder took the time and effort to prepare a video

for his or her campaign as opposed to those who did not. Second, he looks at the whether the founder provided updates within three days of the launch of the campaign. The argument is that founders who post within three days of launch signal a level of preparedness that others do not possess. Finally, the last measure of quality is whether the project pitch contains any spelling errors. In this case, the presence of spelling errors signals poor quality or lack of preparedness. Interestingly, all three measures were correlated with success. The existence of videos and frequent updates were associated with greater success, and spelling errors reduced the chances of success, which suggests that the quality of the projects is linked to success and backers do respond to signals (p. 8). Moreover, Mollick (2014) argues, "that financial backing is linked, at least in part, on a rational assessment of the chance of a project succeeding" (p. 9).

Another characteristic linked to the success of a project was the size of the network possessed by the founder. The study showed that having a large network of friends was associated with successful fundraising, but not a necessity. For instance, it was found to be better to have no Facebook account linked to the project rather than having a small network interpreted by being in the bottom quartile of number of friends in comparison to the other project founders.

Other interesting findings included how the increase in the amount of funds pursued resulted in a lower chance of meeting the funding goal. Another factor associated with a lower probability of success was the duration of the campaign. The longer the campaign the less likely the project would achieve its funding level. Additionally, the role geography played in CF was also of interest. For example, the nature of the population in which founders operate is related to the project success as is the case in music projects in Nashville, films in Los Angeles, or technology projects in San Francisco. Finally, it was found that success had its consequences as it was found that the majority of founders whose projects that were successfully funded were

more likely to be delayed in their fulfillment of their rewards. Moreover, the larger the margin of successful funding achieved the greater increase in delay of fulfillment.

The findings of Mollick (2014) are significant but are not without limitations. First off, they do not distinguish between the types of projects within Kickstarter. The challenge here is that one can argue that each category represents a different industry and thus the types of projects in each category will possess different characteristics. Moreover, it would be unwise to assume that each category act homogenously. Another concern is the measures used as proxies for signals of quality. While, I agree with Mollick that the signals of quality are important to funders, it is hard to distinguish quality by the mere presence of having a video with a project posting or not. The author notes that 86% of all the projects measured included a video. With that great of an amount of the population possessing a video it hardly seems a signal of quality rather it being the norm. If the study had further examined the videos for characteristics such as length, buffering, or production value, then it would be a stronger signal of quality. Moreover, even the author notes of the necessity of distinguishing the nature of how entrepreneurs signal quality, legitimacy, and preparedness is much less defined in CF and thus requires further examination (p.14). Consequently, it would be interesting to explore what other tools founders utilize to attract funders.

In their 2013 study, Colombo, Franzoni, and Rossi-Lamastra look at how founder's internal social capital affects successful funding achievement. They also utilize data from Kickstarter during a three-month period from October 2012 through January 2013. The authors note that some Kickstarter proponents have established a rule called "KickingIfForward" which suggests that founders who have received funds on the platform reinvest 5% of their profits to support other founders on Kickstarter (p. 81). They propose that this is a form of "internal" social

capital that is acquired as a result of being a part of the Kickstarter community. Moreover, they suggest that the initial pledges received during the first stages of the CF campaign can be utilized to reduce the amount of uncertainty associated with the project. The authors note that this occurs through three main mechanisms: 1) observational learning; 2) word-of-mouth; and 3) early feedback from backers that allow founders to address any immediate concerns and update the project accordingly (p. 78). Consequently, they argue that the internal social capital gained by being part of the CF platform community can be leveraged along with a founder's external social capital in order to increase the likelihood of achieving early pledges during the beginning stage of their CF campaign.

Accordingly, they offer three hypotheses to test their belief. The first suggests that a founder's internal social capital is positively related to the number of early backers acquired during their CF campaign. The second states that founder's internal social capital is positively related to the amount of early funding achieved during their CF campaign. Finally, they posit that once early backing and pledges have been achieved, the effect of a founder's internal social capital fades.

They examine 669 Kickstarter projects gathered during the fall of 2012 across four categories including: design, technology, film and video, and video games. The authors measure internal social capital by the number of Kickstarter projects that a founder has backed at the time of launching their own CF campaign. External social capital is measured using the number of connections that each founder has on their LinkedIn profile. The authors state that they prefer a measure of professional social capital by proxy of LinkedIn as opposed to one that is based on friendship such as Facebook. They argue that because the transactions on Kickstarter are of a commercial nature, LinkedIn is more appropriate.

The findings indicated that internal social capital was fundamental to attracting backers and raising capital in the first five days of the campaign, which corroborated the first two hypotheses. Moreover, the early pledges were also closely associated with the likelihood that the founder would achieve their funding goal (p. 94). It was also hypothesized that the effect of internal social capital would fade over time once early backers and pledges were achieved. This was also confirmed by the findings. One very interesting finding was the fact that only internal social capital was found to be significant in attributing to the likelihood of funding. Consequently, external social capital as measured by the founder's connections on LinkedIn was not significant. Moreover, they suggest that this is helpful to founders that may not have an extensive external network. Accordingly, the authors argue that founders should focus on developing their internal social capital within the CF community rather than building their external network as it has a greater effect.

Colombo, et al., (2013) provide a great contribution to the CF literature by developing a new measure within CF as it relates to social capital. The internal social capital findings reinforce the previous discoveries reviewed above in that it builds off of the theme of individuals who participate in CF wanting to be a part of a community. While, the study showed the importance of internal social capital, one might question its significance. For example, I can understand the reason for distinguishing between internal and external social capital; however, they both are part of the founder's network. Consequently, would the findings remain consistent if the measure of backed projects and LinkedIn connections would have been combined? Furthermore, the use of LinkedIn as a measure of external social capital may have been a poor choice. As noted in Mollick (2014) the size of the founder's network as measured by Facebook friends was linked to the likelihood of achieving funding success. Therefore, it begs the question

of whether personal friends are more important than professional acquaintances in CF? Moreover, is there more of an emotional component that is not being considered?

Another study that investigates the effect of social capital on the probability of success in CF is Giudici, Guerini, & Rossi-Lamastra (2013). In their study, the authors utilize the lens of social capital and distinguish between individual and territorial social capital to determine their role in successful CF. Giudici et al., (2013) employ Adler and Kwon (2002) definition of social capital as the good will available to her/him from the structure and content of his/her social relations (p.23). With regards to their differentiation of social capital, they characterize individual social capital as being 'exclusive' to the founder and territorial social capital as being 'locally shared'.

The authors argue that founders can utilize their individual social capital to overcome the information asymmetry barriers that exist in new project financing within CF. Accordingly their first hypothesis proposes that the amount of individual social capital possessed by a founder is substantially and positively correlated with the probability of success in raising funds. In terms of territorial social capital, Giudici et al., (2013) make the case that in geographic areas that possess a large amount of geolocalized social capital projects are more likely to acquire funding without having to access CF. Moreover, they argue that as a result of greater resources available locally to founders to obtain funding, only the worst quality projects would resort to engaging in CF. Thus, engaging in CF in high territorial social capital locations would be seen as a signal of poor quality. As a result, they suggest that an adverse selection problem exists in the areas where territorial social capital is high. Consequently, they offer their second hypothesis, which states that the stock of territorial social capital owned by a founder is not significantly correlated with the probability of success in raising funds (p. 8).

Finally, they offer up a third hypothesis that tests the interaction between individual and territorial social capital. They argue that good quality projects are forced to engage in CF where the amounts of territorial social capital are low. Moreover, these projects would not need to engage in CF where territorial social capital is high due to the greater resources available. Therefore, projects where territorial social capital amounts are high would be a negative signal to backers and thus weakening the signal provided by a high amount of individual social capital. Consequently, they propose that the marginal effect of the stock of individual social capital owned by a founder on the probability of success in raising funds is lower, the larger the amount of territorial social capital is (p. 9).

In order to test their three hypotheses, the authors use information from 11 CF Italian platforms. Their dataset included 699 founders offering 461 CF projects. The dependent variable was dummy coded by a value of 1 if the project was successfully funded and 0 if it was not. Individual social capital was measured utilizing the number of Facebook friends possessed by the founder. After determining the founder's municipality of residence as identified through their project profile, territorial social capital was measured by various levels (e.g. level 2, 3, and 4) according to the NUTS classification developed by the Italian National Institute of Statistics and from a proprietary database Geowebstarter.

The statistical analyses support the three proposed hypotheses. Large amounts of individual social capital were associated with a higher probability of funding success. They also find that territorial social capital has no significant effect on the probability to achieve funding. Of particular interest are the findings of the third hypothesis, which indicate that territorial social capital could possibly be detrimental for CF because it marginally weakens the signaling effect of the individual social capital. Consequently, they note the rise of an adverse selection problem,

in that geographic areas with favorable conditions, higher quality projects may find funds without having to engage in CF.

Giudici et al., (2013) extends the findings of how important a founder's network is in terms of probability of achieving funding success. As previously noted by Colombo et al., (2013) and Mollick (2014) the larger the personal network the greater the likelihood of attaining funding. While the studies finding that territorial social capital may have an adverse effect on the probability of funding is interesting, it may be misguided. This is mainly due to the assumption that only poor-quality projects would pursue CF because they would not be able to acquire funding from traditional sources where the geographic location offers a greater amount of them. The authors fail to take into account the possibility that some founders may want to completely circumvent the structure of traditional forms of funding. Moreover, these founders could be considered early adopters and disrupters in the realm of seeking new venture financing. Furthermore, the projects that turn to CF in areas of high territorial social capital may not necessarily be of poor quality but rather unfamiliar or too innovative for the traditional funders; meaning they are not experienced in funding these types of projects. Thus, this warrants further inquiry.

Another group of researchers explore entrepreneurial legitimacy in reward-based CF, where they note that a project's characteristics are a reflection of the founder. In their study, Frydrych, Bock, Kinder & Koeck (2014) investigate how founders go about trying to establish their projects legitimacy in an online and impersonal context of CF and how this relates to achieving their funding goal. In order to attempt to answer their research question, the authors analyze all Kickstarter.com projects listed in New York between June and July 2012.

The authors posit there are various findings associating certain project characteristics to legitimacy and success. For instance, they suggest that projects with short durations and lower funding targets project legitimacy due to their modest and achievable expectations. They also propose that rewards typical of traditional equity and a team of founders should be signs of legitimacy to backers.

Their findings indicate that successful projects are more likely to have lower funding targets, with those in the film, music, and theater categories being most successful. While the campaign duration was found to not have any significant effect, the data suggested that longer campaigns have less likelihood of success. Other interesting findings indicated that projects with pairs and teams had greater success rates as did those with female founders.

While interesting, the study is weak in that it only looks at projects in New York across a two-month span. The study utilizes a founding team greater than an individual as a sign of legitimacy and preparedness, but they do not attempt to determine whether any of the individuals on the team actually possess any human capital characteristics such as education or industry experience. Moreover, the technology category was not associated with being more successful. This could be due to the lack of experience of the founders to be able to convey the benefits of their project to inexperienced backers.

A study by Ingram, Teigland, & Vaast (2014) may provide some insight into the findings proposed by Giudici et al., (2013). In their study, the authors identify the lack of engagement by technology entrepreneurs in a geographic location known for a high level of technology entrepreneurship. Moreover, they note that while CF has been widely adopted across the United States and Europe, the first reward-based CF platform that focused on technology entrepreneurs in Sweden has not. This is extremely interesting because in terms of entrepreneurship and

technology Sweden is a country known for its technology-based startups and technology-based cluster. Having produced internationally known companies such as Skype and Spotify along with being ranked as the most network-ready country in the world and the second most entrepreneurial, the adoption of the platform appears unsuccessful. This could provide credence to the argument that in areas filled with great resources entrepreneurs with good opportunities do not need to pursue CF rather they find funding in traditional ways. Ingram et al., (2014) perform their study under the guise of Neo-Institutional theory and specifically where prevailing norms and logics shaped technology entrepreneurs' perceptions of CF.

The authors perform a case study through a series of structured interviews with 28 individuals within the startup environment in Stockholm. Although they offer a different argument as to why good quality projects may not engage CF, the findings appear to provide some support to Giudici et al., (2013). Based on a series of institutional logics possessed among Swedish technology entrepreneurs that frame what they expect from investors (e.g. funding, a partnership, and legitimacy), the entrepreneurs did not perceive engaging in CF would afford them the benefits they typically seek. Moreover, the entrepreneurs believed that it is the government's responsibility to support nascent entrepreneurship. Another interesting finding was that the Swedish entrepreneurs did not feel comfortable putting themselves and their project onto this very public forum (p. 23). Which is contradictory to previous research stating that one of the reasons individuals participate in CF is to generate a buzz or publicity around their project. Finally, the authors point out the country's proclivity for privacy and belief in government policies and actions as a reason for the low participation in technology-based CF.

High levels of government support along with a reluctance to share their projects in such a public forum were cited as reasons to not engage in technology-based CF. While, these

findings were interesting and appear to contradict the studies previously cited throughout this review, they are not without limitation. First, the case study was limited to only 28 entrepreneurs located in Stockholm Sweden. In this case the small group cannot be representative of the general population. Moreover, they do not distinguish whether or not the entrepreneurs have prior experience in the startup environment. This is important because if some of those interviewed are serial entrepreneurs with success acquiring funding in traditional forms, then it seems logical that they would not be so inclined as to pursue CF as a legitimate route to funding. Second, the interviews only focused on the first Swedish reward-based CF platform geared towards technology entrepreneurs. In this case it could be argued that the platform in question may not have been of the same quality as the other globally popular reward-based platforms such as Kickstarter. As such, that may have played a factor in the hesitancy of entrepreneurs to use the platform. Finally, the study only looked at technology entrepreneurs and did not attempt to interview other types of entrepreneurs. While the specificity of technology entrepreneurs is notable, it does make one note that other groups are understudied within CF. For example, it would be of interest to study what role gender may play in CF.

One such study that does just that is Greenberg and Mollick (2014). In their study, the authors look at homophily or the notion that given a choice of with whom to associate, men are more likely to prefer men, and women are more likely to prefer women (p.1). By doing so they attempt to determine what function gender has on CF. Building off of earlier work (Mollick, 2014), the authors randomly select 1250 projects from five different Kickstarter categories (gaming, technology, film, fashion, and literature). The reason behind the category selection is due to the proportion of female and male founders of each. The categories characteristics fall across a spectrum with both gaming and technology being highly representative of men and

disproportionately of women. Followed by a balanced almost even distribution of male to female founders in the film category. Lastly, with the opposite end of the spectrum being the fashion and literature categories, which are highly representative of women and disproportionately of men. The authors suggest that CF provides an ideal environment to examine homophily because anyone can participate and provide funding meaning there are no formal gatekeepers which are typically associated with induced homophily. Furthermore, the ability to identify choice homophily is much easier to identify.

Their findings indicated that despite being the minority of funders or backers, women founders outperform men in CF. Moreover, the difference is not affected by the industry categories where women have a greater representation (e.g. fashion and literature), but rather where they have the least representation (e.g. technology). Interestingly, the results indicate that in general female backers tend to avoid funding technology projects unless those projects are founded by a female. Consequently, female founders are substantially more likely to reach their funding goals in the technology category on Kickstarter. Subsequently, the female backers are supporting categories (e.g. technology) that they would normally not be favorable to. This leads to the authors suggesting that the results are indicative of a form of activist homophily. Meaning that women want other women to succeed in a category they are normally underrepresented in and thus will support them without regard for the quality of the venture. In order to further test that finding, the authors conducted a laboratory experiment utilizing a 2 (Project Category) x 2 (Founder Gender) x 2 (Subject Gender) design. The experimental subjects were students at an elite private school in the Northeastern region of the U.S. Their hypothesis states that activism positively moderates the propensity of women to support female-led projects in industries in which women are underrepresented. The laboratory experiment findings are found to support the

hypothesis and suggest that women are more likely to view a project favorably in technology if the observable founder is female and they are activists who believe that women are under-represented in technology (p. 33).

Greenberg and Mollick (2014) take on a new subset of founders by investigating how gender plays a role in CF by focusing on homophily. The findings while interesting are not without limitations. First of all, the study only looks at only one platform (e.g. Kickstarter). This can be challenging because the demographics of other popular CF platforms such as IndieGoGo may possess different representations of men and women. Furthermore, as noted by the authors the experiment was performed using a sample form a different population. One could argue that there could be alternative explanations to female founders outperforming males in CF. For example, it may not be due to the presence of homophily, but rather an emotional connection with the founder. Moreover, in the data set, the projects proposed by female founders may have been perceived to be of better quality than those of proposed by males. Another, explanation could be that women founders did a better job at providing signals to backers than men. For example, they may have possessed a greater level of experience and education, or their projects were just perceived to be more interesting. Thus, more investigations into the signals that founders send to backers is warranted.

Accordingly, another study that takes a look at the effect of signals in CF is Moss, Neubaum, & Meyskens (2015). In their study, the authors seek to extend signaling theory by suggesting that the narratives of projects that signal virtuous or entrepreneurial orientation will be more likely to receive funding in a CF microlending environment. Moss et al., argue that in order to battle the information asymmetry problem in the microfinance environment, project founders turn to signaling to entice backers to provide funding. Because the funders possess less

information and uncertainty regarding the venture, founders must project their virtuous orientation to achieve successful funding. The authors proceed to discuss the six dimensions associated with virtual orientation, which include: conscientiousness, courage, empathy, integrity, warmth, and zeal (p.32). Accordingly, they propose two hypotheses with relation to virtuous orientation. The first states that the extent to which founders signal the aforementioned six dimensions of virtuous orientation to backers is positively associated with the likelihood that investors will fund microloan ventures. The second argues that the extent to which founders signal the six dimensions of virtuous orientation to backers is positively associated with the likelihood that the microloan ventures will repay their loans.

Next they proceed to discuss how entrepreneurial orientation can also serve as a signal to backers. Entrepreneurial orientation consists of five dimensions, which include autonomy, competitive aggressiveness, innovativeness, proactiveness, and risk-taking (p. 35). Following the same argument as virtuous orientation, they argue that founders who exhibit a strong entrepreneurial orientation will also have a greater likelihood of success in funding their ventures. Consequently, they propose two more hypotheses that mirror those for virtuous orientation. First being the extent to which founders signal entrepreneurial orientation to backers is positively associated with the likelihood of investors funding the microloan venture. Second the extent to which founders signal entrepreneurial orientation to backers is positively associated with the likelihood that microloan ventures will repay their loans.

In order to test their hypotheses, the authors utilize the microlending CF platform KIVA. They look at whether or not a project received funding, how long it took to fund, whether or not the loan was repaid, and how long it took to repay the loan. With regards to measuring virtuous and entrepreneurial orientations the authors perform a computerized textual analysis of

organizational narratives via content analysis. The findings for the measure of virtuous orientation were found to be in contrast of both hypotheses 1 and 2. In the case of the first hypothesis projects that signaled the dimensions of conscientiousness, courage, empathy, or warmth were less likely to achieve funding. In terms of the second, the same contrasting results were exhibited with founders' narratives that signaled the dimensions of conscientious, courage, warmth, or zeal were less likely to repay their loans and when they did repay them it was at a slower rate. In contrast to virtuous orientation, the projects with narratives that signaled entrepreneurial orientation for the dimensions of autonomy, competitiveness aggressiveness, and risk-taking were positively associated with achieving funding success. However, in terms of the final hypothesis, signals of entrepreneurial orientation were not positively associated with the repayment of a loan. Moreover, it was found that high signals of proactiveness in the loan descriptions were actually less likely to repay their loans.

This study makes contributions to the microfinance and microenterprise literature as well as extends the investigation of CF by incorporating signaling theory. As stated by the authors, the findings indicate that founders should focus signaling dimensions of entrepreneurial orientation rather than virtuous orientation. This in turn provides a contextual condition under which certain dimensions of virtuous and entrepreneurial dimensions may or may not be important to the performance of microenterprises (p. 45). This study is not without its limitations. One of the biggest challenges of the study is that the findings would likely not translate to other CF funding environments. For example, while KIVA is a form of lending-based CF platform, it specializes in microloans. Thus, it could be argued that backers that participate in KIVA can be seen more as philanthropists rather than investors in that they are not truly interested in a return on their investment otherwise they would seek out better platforms that

offer a greater rate of return. This is further exacerbated by the fact that KIVA asks the backers who are repaid whether they wish to donate the proceeds back to KIVA or reinvest in another project. Therefore, I would argue that once a backer invests money into a KIVA project, they are okay with never seeing that money again. Despite the limitations, the study does signify the importance of signals that founders can send to backers in CF. Accordingly, further investigations into signaling in CF are warranted.

Another that attempts to look at signaling in CF is Wu, Wang, & Li (2015). In their study the authors identify three types of signals that are associated with garnering support in CF. The signals include, the amount of lowest bid, the amount of a highest bid, and the frequency of announcements made by the founders. Under the guise of signaling theory the authors make the case that these three signals are all under the control of the founders and as such they send a message to backers. Of interest in the study is that they depart from previous research in that the dependent variable is not measured by whether or not a project was successfully funded. Instead they focus on the amount of support a project receives measured by the number of likes and number of supporters (e.g. backers).

Utilizing the CF platform demohour.com based in China, the study examines 192 projects across three industries, but classifies them into two categories: (1) technology and (2) entertainment. They argue for the industries being diametrically opposed in that technology is based on science with the focus on products and having a profit-oriented goal, while entertainment is focused on ideas, is art based and has an anti-business culture. They move on to make their case regarding the three types of signals founders use and their role on getting attention from the crowd. Specifically, how these signals are utilized to combat the information asymmetry problem that is prevalent in CF. The first hypothesis argues that setting a low bid

offers a signal that the founders are sincere in their effort to seek funding from the crowd and that it represents a low entry cost for potential funders which could represent low moral hazards (p. 327). Accordingly, they state that the lowest bid is positively related to both (1) the number of likes the project receives and (2) the number of supporters. Next they argue how a higher amount for the highest bid may signal that founders are confident about their project and thus the project may be perceived to have a higher quality, which would attract more investors (p. 328). Therefore, they state that the highest bid is positively related to both (1) the number of likes the project receives and (2) the number of supporters. The third hypothesis focuses on the third signal frequency of announcements. In this case they argue that frequent communications signal that founders care more about the backers. Moreover, backers could interpret the frequency of communications as a signal of trustworthiness from the founder or as a level of transparency and information sharing which signal sincerity (p. 328). Consequently, they state that frequency of announcements is positively related to both (1) the number of likes the project receives and (2) the number of supporters.

Finally, they move on to discuss the impact a particular industry plays in CF. As previously mentioned, they distinguish the characteristics of the two industries in which they analyze (technology and entertainment). The authors suggest that due to the different characteristics possessed by each industry, the same signals may perform in different ways within each industry. Moreover, they argue that in the technology industry founders may need to send stronger and more frequent signals to attract investors and that strong and frequent signaling may not be necessary for more mature and stable industries (p. 329). Accordingly, they offer up a fourth hypothesis that addresses the three signals. This is broken up into three parts, first it states that the relationship between the lowest bid and (1) the number of likes the project receives

and (2) the number of supporters is higher in the technology industry than in the entertainment industry; second is the relationship between the highest bid and (1) the number of likes the project receives and (2) the number of supporters is higher in the technology industry than in the entertainment industry; and third they state that the relationship between the frequency of announcements and (1) the number of likes the project receives and (2) the number of supporters is higher in the technology industry than in the entertainment industry.

Their analysis includes two dependent variables of supporters and popularity. The supporters are measured by the number of backers who made contributions and the number of likes a project receives measures popularity. It is important to note that in the demohour.com platform, one does not have to fund a project in order to like it. The findings for Wu et al., (2015) include support for the second hypothesis where they note that the higher the highest bid, the more funders like and support the project. They suggest that the higher bid/price more than likely sends a message of high quality to the backers. They note how the lowest bid did not have a significant impact on the popularity or support a project attracts. Consequently, they argue that this could be due the fact that a low bid could be construed as low quality and thus backers are not willing to support low quality projects. Hypothesis 4c is also found to be supported in that the more frequent announcements the founders make, the more funders like it; however, hypothesis 4b is not supported in that for the technology industry, the higher the highest bid, the fewer backers who like the project (p. 330). The authors also find that the technology industry tends to be more popular than the entertainment industry as noted by the fact that they receive more likes. Yet, despite having a greater amount of popularity did not translate to receiving more support as measured by providing funding. The authors suggest that this is due to technology

projects possessing a suspicion of opportunistic behavior and moral hazards as noted by Connelly et al., (2011).

In their study Wu et al., (2015) identify the various effects of signals sent by founders to backers in the Chinese CF platform demohour.com. While, this study clearly contributes to the CF literature and provides an interesting new focus by measuring a projects popularity and support it is not without its limitations. As noted by the authors, they lack information about the founders and backers as well as assuming that the technology and entertainment industries are on opposite sides of the spectrum. Moreover, they also reference the fact that supporters and likes are highly correlated and would require further distinguishing. Another concern would be the findings regarding the effect of the highest bid. For instance, the authors do not provide enough detail to determine whether a threshold may exist in terms of the highest bid. One could ask how high is high? Is it proportional to the amount of funds being sought for the project? Additionally, it would have been interesting if they would have included the measure of successful funding achievement within their study in order to determine whether or not the findings are related to success or failure. It is interesting to know what signals could help founders get more attention, but if it does not translate into successful funding then why bother? Consequently, what other signals could be investigated. Of interest would be signals that are attributed directly to the founders such as education or experience.

A study that takes a different approach at looking at the founder perspective is Davidson & Poor (2016). Their study investigates the factors that correlate with repeated CF by a founder. Utilizing data from Kickstarter and focusing on four of the platform's categories, the authors attempt to determine when founders are more likely to come back to CF as a continued source of funding for their cultural projects. The authors suggest that CF can be viewed as a Bar-Mitzvah,

meaning that friends can only be approached once, and it may be difficult to have multiple campaigns (p. 130). They theorize that there are certain factors that will motivate a founder to continually come back to CF to seek funds for their projects. The first focuses on the dependency to a limited number of backers. The second postulates that the volume of supporters gained for a first project will affect the likelihood of the next one. Finally, the last factor is that success breeds success, meaning that the meeting or exceeding of a funding goal will lead to a greater likelihood of repeat CF.

The findings indicate that their hypotheses were supported in three out of the four categories they investigated. Projects with a lesser group of backers were less likely to result in a second founder project. On the other hand, a larger number of backers that support the project was shown to increase the likelihood of a second founder project. Finally, the greater amount of success a founder received on their first project, measured by the amount raised over the goal significantly increased the chances of a repeat founder project. Based on the findings, the authors suggest that in order for founders to launch repeat CF projects they must be able to develop networks outside of their immediate friends and family.

The study findings shed light on what may lead to repeat CF. Although the results were found to be significant, they do not take into account any of the project characteristics that could influence the findings. For instance, they do not take into account whether the projects are developed by an individual or group. They also fail to control the amount of funds being sought, location of project, length of campaign and gender. This makes it difficult to have any of the results be generalizable. Moreover, they are limited to only Kickstarter.com, which operates on an all or nothing model. It would be worth looking at another platform such as Indiegogo that works on a keep it all method and see if founders are more likely to repeat CF in that type of

reward-based model. Another issue of interest regarding the authors point of founders having to tap into backers outside of their immediate networks would be to look at what backers are saying regarding a project via the comments section.

A study by Courtney, Dutta, & Li (2017) looks at what they refer to as backer sentiment via the comments for a project. The authors investigate how founders can manage the information asymmetry problem in reward-based CF. Specifically, they look at the interaction of multiple signals. Their interest is in the relationship between the signals that come from the founder and those from third parties (i.e. backers). The authors posit that founder signals offset their own effects; backer signals will enhance founder signals. The founder signals they focus on are the use of media and previous founder experience in CF. For the backer signals they introduce 'SentiStrength' into entrepreneurship literature, which is a computer-based algorithm used to analyze the tone of external comments posted by backers.

Like most other studies their dependent variable is whether or not the founder was able to successfully meet their funding goal. The authors propose that the founder signals (use of media and past experience) are positively related to successful funding, but that the positive effect from use of media is diminished by previous founder experience. Moreover, they propose that the positive effect of the individual founder signals is intensified by positive backer comments. Their findings indicated that the use of media is positively related to first time founders as opposed to those with previous experience. Additionally, the study showed the importance of positive outside feedback via backer sentiment. Positive backer sentiment was shown to enhance the effect of founder signals.

This study was significant in that it incorporated a measure for backer sentiment using the computer-based algorithm SentiStrength. However, there are some limitations with the measures

used for founders. For example, media is measured by whether the founder included a video, images, or a combination of them. The authors would have been better suited by incorporating a measure of quality of the media used in order to see if there was a difference in the effect. The findings indicated that the use of media is positively related to founders without previous experience as opposed to those repeat founders. However, this could be due to the fact that there are more first-time founders than repeat ones. Moreover, the repeat founders may have learned lessons from their previous campaign that they are incorporating into their new campaign that may or may not be positively related to success.

The study developed by Kunz, Bretschneider, Erler & Leimeister (2017) investigates quality signals. Their research posits that the greater amount of time and effort a founder invests into their project the greater the signal of quality they are sending to backers. Consequently, these higher cost quality signals should lead to a greater likelihood of achieving successful funding. The authors look at various ex-ante (pre-funding phase) signals that range from low cost to high cost. These signals follow previous studies discussed and analyzed in this review. They also include signals utilized during the funding phase such as FAQ count, Facebook buzz, update count, and staff picked.

Their findings illustrate that founders can divide their signals into two main phases in CF (i.e. ex-ante and during) as well as group them by the cost associated to them. The results also showed that the number of updates, reward levels, staff selected pick, social networking, previous support, project description, images, videos, link to homepage, FAQ questions, and social media buzz were all positively related to funding success. The majority of these variables have been previously been found to be positively related in other studies cited in this review. It is important to note that other studies have used these measures, but the authors appear to be the

first to separate them over a time continuum and production cost (i.e. low to high). New measures incorporated in this study included delivery time, impact of scarcity of rewards, availability of a project home page, preparation time, number of entries in the project FAQ, and social media buzz. The findings showed that founders must select the right combination of signals in order to meet their goals.

Some of the limitations associated with the study are whether or not the same separation of signals is applicable across other types of CF such as donation, lending, or equity based. Furthermore, they only investigate an all or nothing model using Kickstarter.com data. The authors note that it would be worthwhile determining if the same is applicable in a keep it all environment. Finally, they do not take the quality of actual project into consideration nor do they distinguish between categories.

One study that focuses on the quality of a project and its relationship to subsequent funding is Roma, Petruzzelli, & Perrone (2017). In their study the authors want to know what happens after a successful campaign. As opposed to Kunz et al., (2017), this study focuses solely on technology projects in the Kickstarter.com CF platform. The authors investigate technology-based ventures and examine the effect of their performance on the likelihood of securing follow on funding from outside investors after a reaching their campaign goal.

The study suggests that a highly successful reward-based technology venture CF campaign can serve as a powerful market signal. The assumption is that backers of the project do not have a biased toward the founder and thus signal quality in a project based on their support. Furthermore, these campaigns should be very attractive to professional investors due to the fact that the highly successful campaign clearly signals that there is a strong market need for the product/project. This is important because the majority of founders may not have the experience

nor may possess the wherewithal to actually successfully deliver their products as promised. Moreover, the authors note that this relationship is enhanced by the presence of patents related to the project along with the founder's social network. The study looked at all technology projects in Kickstarter.com from its inception in 2009 through the end of 2012 that raised over $50,000 above their goal. In this case the dependent variable was whether or not the founders received follow on funding from professional investors after the campaign. Their results confirm that new technology-based ventures engaging in reward-based CF that significantly outperform their funding goal have a higher probability of acquiring subsequent funding. However, this occurs when the project/product is complemented by the presence of patents as well as a large amount of entrepreneurial social capital (measured by the amount of LinkedIn connections). Interestingly, the authors also found that human capital is significant in receiving subsequent funding as indicated by the previous founding or previous sale of a venture by one of the founders.

One of the problems with the study is that there could be an inherent bias in that family and friends of the founder contribute significantly to the campaign and then reach out to their network of friends to promote the project and thus provide a vote of confidence for the project which in turn could provide a form of bias for a backer that is not directly connected to the founder but is connected to a direct friend of the founder. Thus, it is not clear if it is actually the founder's social capital that is providing the impact. Another glaring limitation of the study is that they do not take into account the characteristics of what made the project successful or not. The sample consists of only projects that achieved $50,000 or more of what their intended goal was. Essentially the authors ignore the previous studies cited in this review that take into account the project characteristics associated with successful CF. Consequently, the presence of a patent

or a high level of social capital may not be as influential in receiving follow on funding, but rather it is because the campaign garnered more than three times the funding it was seeking. Thus, making it an attractive investment to outside professional investors as the venture would have excess cash on hand and proven market demand as evidenced by the campaign.

While Roma et al., (2017) looked at how technology-based ventures using reward-based CF could acquire funding from professional investors, a study by Block, Homuf & Moritz (2019) look at how to increase investor participation during an equity CF campaign. Specifically, the authors investigate how startups can signal their value during an equity CF campaign by utilizing updates as a way to communicate with potential investors and increase the likelihood of achieving or exceeding their funding goal. The data comes from two German equity CF platforms, Seedmatch and Campanisto. The authors argue that updates serve as a method of signaling quality for the startup to potential investors during the CF campaign. Of interest was the frequency of the updates themselves and whether the impact was immediate or lagged.

The findings suggest that updates posted by founders in equity CF are both statistically and economically significant in terms of investor participation as they increase the investment amount and number of investments received. However, the effect diminishes with the increased number of updates. Furthermore, the positive effect is not immediate, but rather delayed by a few days. Moreover, the effect of an update is decreased if the language complexity of the update is high, meaning that an update with ‘easy language’ is more effective. Of interest was updates that focused on campaign developments, new funding, business developments, and cooperation projects had a positive effect, while those that focused on the startup team, business model, product developments and promotional campaigns had no effect. Ultimately the results indicate

that the type of information shared by founders in equity CF should be strategic and focus on updates that will provide a greater amount of investor participation.

The challenges with this study include the data set and sample size. As noted by the authors, 71 funding campaigns is relatively small, and excluding campaigns that reach their goal within a few hours or day were not considered therefore they did not have any opportunity to publish updates. Moreover, it is not able to distinguish between industry, development stage, or country. Finally, it would be worth further investigating if the effects would be similar in other forms of CF such as reward based.

Chan, Park, Patel & Gomulya (2018) appear to investigate these effects in reward-based CF. In their study they utilize systems theory to propose that CF can be categorized into four levels: project effect (project related characteristics that influence backers); product category effect (different product categories could be more trendy and garner higher amount of backers and funding); entrepreneur effect (entrepreneur related characteristics that influence backers); and location effect (location advantages from regional networks and industrial clustering). The authors proceed to suggest that the four factors can be categorized into a couple of larger factors agency and structural. Agency factors are those which the entrepreneur has control over (project and entrepreneur) and structural factors are those of which the entrepreneur cannot control (product category and location). Accordingly, the authors hypothesize that agency factors will be more influential in funding success than structural factors.

They utilize all Kickstarter.com projects from May 2009 through May 2014 and analyze them using variance decomposition analysis. The findings indicate that of the four levels identified (project, product, entrepreneur, and location), the entrepreneur effect is significantly stronger than any of the others. Moreover, when comparing the agency versus structural factors,

the authors note that the combined entrepreneur and project (agency) effects are substantially greater than the product and location (structural) effects. In order to check for generalizability of their findings, the authors gathered data from another reward-based CF platform. They analyze data from technology projects posted on Indiegogo between the period of April 2010 and September 2013. In contrast to Kickstarter, Indiegogo is a keep it all model in that the founders keep whatever funds are raised regardless of whether or not they meet their funding target. Interestingly, the findings were consistent with the results acquired using Kickstarter data.

Chan et al., (2018) appears to be the first study to test data from two different CF platforms, specifically one that is an all or nothing model in Kickstarter and one that is keep it all in Indiegogo. However, the study still has some limitations. For instance, the Indiegogo sample used is relatively small and only looks at the technology category as compared to the Kickstarter sample. Furthermore, as noted by the authors, the VDA methodology does not allow for the testing of potential interaction effects between the project, product, entrepreneur, and location effects.

Another study that looks at the location factor identified by Chan et al., (2018) is a study by Giudici, Guerini, & Rossi-Lamastra (2018). In their study, the authors investigate how the location characteristics of where a founder resides and launches their project from affects the success of a campaign. Specifically, they look at the level of local altruism and localized social capital aspects of the regions where founders live and their effects on successful campaigns. The data is collected by reviewing projects from 618 founders residing across 88 Italian provinces. The final sample included 456 reward-based projects across 13 Italian CF platforms between October 2012 and July 2014.

The authors measure local altruism by the percentage of taxpayers who lived in the province where the founder and project reside that donate five percent or more of their annual income tax. With regards to localized social capital they split it into two dimensions, localized relational capital and localized norms. The findings indicated that founders who live in provinces with high levels of local altruism were more likely to gain backers for their projects. Moreover, this effect was magnified by the localized relational capital of the area. The study shows that founders can influence the amount of money they receive from backers if they reside or launch their projects in areas with a high level of local altruism and localized relational capital.

The Giudici et al., (2018) study provides new insights into how the local geographical characteristics of the founder's residence or project launch site influence their ability to raise capital. The study only investigates projects across Italy. Unfortunately, they do not distinguish the projects by industry or product type in order to determine the relationship of those effects. Furthermore, by only focusing on projects based in Italy, it is difficult to know if these findings are the same in other countries. For instance, Italy as a country may have a higher level of altruism as a society as opposed to a country like South Korea or the United States even. Moreover, they essentially ignore the characteristics and motivations of the backers themselves.

While, the previously reviewed study looks at the importance of the location where founders launch their project, a study by Gafni, Marom, & Sade (2019) looks at the importance of the founder and their previous experience in CF by way of how much information the founders provide about themselves as opposed to the actual project's effect on funding success. The authors suggest that reward-based CF provides an ideal environment to investigate the early stage funding of ventures and to contribute to the long-standing debate of whether the venture or the entrepreneur is more important in acquiring funds.

In order to test their premise, the authors utilize three years of Kickstarter.com data from its inception in April 2009 through March 2012. The authors utilize the increased mentions of a founder's name in their campaign description as a proxy for human capital, while increased mentions of the product/project in the description section served as a proxy for information on the venture. The authors compare the data across all of the Kickstarter categories in order to test whether or not the entrepreneur or the venture are more important in early stage funding.

Their findings indicate that founders of artistic projects tend to emphasize themselves within the campaign description/pitch by way of mentioning their names more frequently as opposed to founders in technology projects. Subsequently, they also find that the increased emphasis is positively and statistically significantly related to the success of the campaign along with the amount of funding exceeding the goal. The authors argue that the results show that founders who mention themselves a great deal may increase the levels of trust and familiarity of backers. Moreover, they argue that as compared to artistic projects where the founder is key to the project, it may be easier to replace a founder in a technology project.

In summary, the authors make the case that the entrepreneur is more important than the venture in reward-based CF. The challenge with this study is the measure used to determine the human capital component. Increased mentions of a founder's name in a pitch description does not seem like a balanced measure across Kickstarter.com categories. For instance, backers looking at technology projects may be more interested in learning about the qualities of the proposed product in the pitch versus seeing a greater amount of mentions of the founder's name. Moreover, the study did not take into account the level of complexity of the technology project themselves as opposed to artistic projects. Additionally, while they attempt to measure the network of the individual founders, it is too difficult to estimate what type of following a founder

brings in from previous ventures. For example, a founder who is seeking to develop their latest novel, may have a history of previous titles and for that matter fans they can tap into when seeking funding for their project, whereas technology projects require a higher level of expertise from a founder and are not typically associated with a previous history of products or fans they can tap into.

The study by Leone & Schiavone (2019) attempt to look into the complexity of technology projects by performing a case study on one technology campaign from Kickstarter.com. The study looks at the two campaigns launched by the founder for the 'Coolest Cooler' an innovative ice chest developed by the founder that incorporates a blender and Bluetooth speaker into the cooler. The first time the campaign was launched, the founder did not achieve their funding goal of $125,000 and was only able to have backers pledge $102,188. Since Kickstarter.com is an all or nothing platform, the founder was not able to receive any of the pledged funds. Moreover, the first campaign was launched over a 30-day period from late November to December presumably to tap into the Christmas gift giving crowd. The second campaign was launched at the beginning of August typically the hottest month of the year temperature wise. The second campaign's funding goal was set lower at $50,000; however, it reached an outstanding $13,285,226 before the end of its 30 days.

The authors take a deep dive into the case of the Coolest Cooler and discover varies intricacies that can be utilized by future founders. Their findings suggest that the self-learning gained by the founder from the first failed campaign provided him the appropriate support to relaunch a successful second campaign. They highlight how the founder incorporates three areas of revisions from the initial campaign learned from the failure of the first. The first is knowledge sharing, for this area the founder taps into other forms of social media and vehicles to share news

and updates on the project (e.g. YouTube). Next is product redesign which led to modifying the description of the product along with the launch date of the campaign. Finally, both of the previous areas lead to an increase in the social capital size of the founder by means of an increased amount of Facebook and YouTube shares and likes, which led to a higher number of supporters. Accordingly, the authors offer three propositions as a result of the case study that suggest that founders can learn from their mistakes where they must focus on communication during knowledge sharing and pay attention to the content of the messages in order to increase their social capital size.

The case study does a great job of taking a profound look into the events of one of the most successful CF campaigns on Kickstarter.com. However, while it provides a wealth of insight and information, it is only one project from one category. Moreover, the focus is on the founder and what he learned from the failure. The case study is silent on the backers in terms of their motivation. Finally, the authors could have looked at following in the footsteps of previous studies that have analyzed backer comments (Courtney, Dutta, & Li 2017) by investigating the effects of the content of the comments by backers during the campaign within Kickstarter, Facebook and YouTube.

With the enormous success of the Coolest Cooler, one may wonder whether it would have been worth utilizing a keep it all platform such as Indiegogo rather than the all or nothing platform like Kickstarter that was used. A recent study by Miglo & Miglo (2019) develops an econometric model that not only compares the two reward-based CF models but also includes equity-based CF as well under different types of market imperfections. Their focus is on the role of asymmetric information and moral hazard (p. 53). They note that their model incorporates the

elasticity of CF, where the amount of funds is dictated by the demand of the backers. Moreover, they also consider market feedback and the moral hazard faced by the entrepreneur.

The authors offer nine different propositions based on their model. The model infers several implications, such as: when asymmetric information is important, high quality projects prefer reward based CF versus equity; choosing a keep it all strategy can serve as a signal of a founder's quality; and prices can be higher and quantity produced can be lower under equity than under reward based due to distortions created by moral hazard problems related to the cost of entrepreneurial effort (p. 70). This study appears to be the first of its kind at comparing three forms of CF all or nothing, keep it all, and equity based.

While the findings and suggestions of the Miglo & Miglo (2019) study are interesting, they are only propositions and as the authors not have not yet been tested empirically. It is difficult to ascertain whether their suggestions would hold true. It would have been helpful if the authors took data from Kickstarter, Indiegogo, and an equity CF platform and analyzed it. Another method could have been performed by surveying founders of those types of platforms. As previously mentioned, this study appears to be novel in comparing the different forms of CF. However, as research moves forward it would be worth to begin investigating what happens after the CF campaign.

A previous study by Roma, Petruzzelli, & Perrone (2017) looked at follow on funding from qualified investors for successful technology-based ventures in reward-based CF. In a recent study Thies, Huber, Bock, Benlian & Kraus (2019) take this a step further. Their study investigates venture capitalists' selection decisions in a projects' follow-up funding and whether or how certain CF campaign-specific signals affect the decision. What the study is trying to determine is whether the signals that are created by the backers as a result of a reward-based CF

campaign are valuable to venture capital firms when making an investment decision for these new ventures.

The authors utilize Kickstarter.com data from the game, design, and technology categories and cross reference it with the Crunchbase database to determine which projects received follow on funding from venture capitalists. The findings indicate that high interest in the product as a result of a successful CF campaign with a large number of backers serves as a positive signal to venture capitalists. However, this effect is limited to the point where a campaign can be too successful making the relationship negative at a certain level. The authors argue that a campaign which substantially exceeds its funding target can signal overconfidence and the lack of need of investment from a venture capital firm. Another finding includes the selection by the platform as a 'staff pick' where a campaign is featured on the front page of the Kickstarter.com platform as a signal of superiority to other campaigns. Finally, they found that the amount of sharing the campaign on social media by backers was not a significant signal to influence venture capitalists' decisions.

Thies et al., (2019) takes an interesting look at what happens to founder's campaigns after successfully achieving or exceeding their goal. However, the challenge with the study is that it is limited to only three categories on the reward-based platform Kickstarter. Moreover, as the authors note, based on their cross-referencing method with Crunchbase the research data may include elimination of false negatives and thus it is not possible to make any reliable interference about how many CF campaigns truly received follow on funds (p. 1391). Subsequently, the study is not able to distinguish if the follow-on funding is a result of the campaign exceeding its funding goal or whether it is simply due to the project/product quality itself.

The previously reviewed studies that encompass the investigations into founders help investigate one side of the coin that is CF. However, there are still questions that remain unanswered when it comes to the founders. Accordingly, a summary of the current literature that focuses on founders is summarized in table 2.4. The table includes the relevant findings and limitations of each study.

Table 2.4. Research Investigating Founders

Authors	Findings	Limitations
Colombo, Franzoni, & Rossi-Lamastra (2013)	Founder's internal social capital is fundamental to attracting support and raising capital in the early stages of a campaign, but fades over time; Professional connections may not be as important as a founder's friend connections in CF	Internal social capital is a part of the founder's network, therefore would the findings be the same if the measurements of internal and external social capital were combined?
Giudici, Guerini, & Rossi-Lamastra (2013)	Large amounts of individual social capital possessed by a founder were associated with a higher probability of funding success; Territorial social capital has no effect on success in CF; High levels of territorial social capital may result in higher quality projects not pursuing CF	The study assumes that high quality projects would not engage/pursue CF in areas where the territorial social capital is high because theoretically, they would be able to acquire funding through local resources; Other studies have noted that founders engage in CF to circumvent traditional financing
Frydrych, Bock, Kinder & Koeck (2014)	Founders seeking legitimacy should set lower funding targets that are a sign of modesty. Longer campaigns may be less likely to succeed. Projects with more than one founder or led by females appear to be more successful	Only analyze Kickstarter projects from New York over a two-month period. Do not investigate the human capital characteristics of the founders.
Ingram, Teigland, & Vaast (2014)	Swedish entrepreneurs did not perceive that engaging in CF would afford them the benefits they seek from investors; Contrary to previous research, they do not feel comfortable putting themselves or their project in such a public forum	Small case-study of only 28 entrepreneurs in Stockholm Sweden; Do not distinguish if the entrepreneurs have prior startup experience; This is important because serial entrepreneurs may not consider CF due to their existing networks and access to funding
Greenberg & Mollick (2014)	Women founders outperform men in CF; Female funders tend to avoid funding unless the projects are founded by a female	Only utilize one platform for their projects; Do certain platforms favor women vs. men or vice versa?
Mollick (2014)	Signals of quality and the size of a founder's network are related to successful campaigns; When campaigns fail, they fail big; When they succeed it is typically by a small amount; Funding amount sought, and duration of campaign were associated with likelihood of success	Does not distinguish between types of projects categories; Projects categories can possess different characteristics; The proxies utilized to measure signal quality are not particularly strong
Moss, Neubaum, & Meyskens (2015)	Founders should focus on signaling dimensions of entrepreneurial orientation rather than virtuous orientation if they wish to be more likely to acquire funding	The platform studied (KIVA) is a microlending platform that operates more like a philanthropy rather than one where funders are seeking a return on their investment

Wu, Wang, & Li (2015)	Founder's receive more support by setting a higher highest bid which could signal a higher quality; The higher the frequency of announcements the greater the likelihood of garnering support	Does not measure effect of whether the project successfully acquires its funds; What good is having a popular project that does not receive funding? Does not look at the signals directly attributed to the founders (e.g. education, experience)
Davidson & Poor (2016)	The authors use Kickstarter data to investigate the potential characteristics that are associated with and potentially lead to repeated use of CF for cultural products. Findings indicate that founders who seek to launch repeat projects should be able to access a network of backers outside of their inner circle.	The study does not control for founder team size, gender, length of campaign, location, nor amount of funding sought. It also only looks at Kickstarter which is an all or nothing model. It would be good to look at data from a keep it all model such as Indiegogo.
Courtney, Dutta, & Li (2017)	Investigate how founders manage information asymmetry in reward-based CF. They look at the interaction of multiple signals (founder and backer related). Introduce backer sentiment measured using SentiStrength. Positive outside feedback helps manage information asymmetry.	There measure of media does not take into account the quality of it. They also do not take into account the effects of learning with regards to repeat founders and backers.
Kunz, Bretschneider, Erler, & Leimeister (2017)	The greater amount of time and effort a founder invests in their project the greater the signal of quality they send to backers. They break up signals across a time continuum (pre and during phases) as well as production cost (low to high). Introduce six new signals not previously measured. Founders must select the right combination of signals in order to meet their goals.	Issues with generalizability to other forms of CF. Should look into a keep it all model of reward-based CF. Ignore the quality of a project as well as the project categories and its potential effect.
Roma, Petruzzelli, & Perrone (2017)	What characteristics lead to follow on funding from professional investors of new technology-based ventures in reward-based CF. Founders that highly exceed their funding goal, have a patent and a large amount of social capital are significantly more likely to acquire funds from professional investors.	Study ignores previous research with regards to the characteristics of the project and what makes it successful. The presence of patents or a high level of social capital may not matter and the reason for follow on funding could be as simple as the fact that the founder is now flush with excess cash on hand.
Block, Homuf, & Moritz (2018)	How founders can utilize updates in equity CF to increase backer participation and funding levels. Effects of updates are delayed by a few days. Equity CF founders should be strategic and focus on updates that will provide a greater amount of investor participation. (e.g. campaign, funding, business developments, and cooperation projects).	Data set and sample size were very small (only 71 funding campaigns). Campaigns that reached their goal within hours or a day of launch were not included. Consequently, the time lagged effect of the updates was not able to be measured. The sample did not distinguish between industry, development stage, or country.
Chan, Park, Patel, & Gomulya (2018)	Agency factors as measured by project and entrepreneur effects are more influential in the funding success of reward-based CF than structural factors as measured by product category and location. Entrepreneur effects are strongest. Test a keep it all model dataset of technology projects on IndieGoGo CF platform to compare them to the all or nothing original sample set utilized from Kickstarter.com	The variance decomposition analysis (VDA) methodology used does not allow to test for interaction effects between the factors identified. The comparative data set from Indiegogo is relatively small, thus generalizability is still a concern.
Giudici, Guerini, & Rossi-Lamastra (2018)	The characteristics of the geographic area in which a founder resides or launches a product from influences the amount of capital raised in reward-based CF. Findings suggest that local altruism influences CF success and the effect is magnified by localized relational capital among Italian CF project founders.	Study essentially ignores the characteristics and motivations of backers. Only focused on Italian CF platforms. Does not take into account the interaction effects of industry or product type.

Gafni, Marom, & Sade (2019)	Study suggests that founders of artistic projects should mention their names at a high level throughout their pitches in order to increase their chances of acquiring backers and funding. Argue that in reward-based CF the entrepreneur is more important than the venture when it comes to acquiring support.	Authors do not take into account the complexity of technology projects and the level of sophistication required when compared to artistic projects. It is more difficult for technology founders to tap into a history of fans the way an author might be able to.
Leone & Schiavone (2019)	Founders can learn from past failed campaigns and incorporate the experience in order to support a successful relaunch. Focusing on communication and content of the message may increase social capital size which results in an increased amount of support.	Case study that focuses on a single technology-based project on Kickstarter.com. Could have included investigation into the backer's motivation by analyzing the content of the backer's comments posted across Kickstarter, Facebook and YouTube.
Miglo & Miglo (2019)	Econometric model that compares three types of CF (all or nothing, keep it all, and equity) under different types of market imperfections. When asymmetric information is important, high quality projects prefer a keep it all campaign versus equity or all or nothing.	Study only offers propositions and is not tested empirically. Authors should have compared Kickstarter, Indiegogo, and an equity CF platform to test their propositions.
Thies, Huber, Bock, Benlian, & Kraus (2019)	Signals created by backers during reward-based CF can influence the likelihood of follow on venture capital funding. Campaigns that garner an excess of backers and capital can signal quality to VCs, but the effect becomes negative if a campaign raises too much money. Campaigns which are selected as a 'staff pick' signal superiority to VCs.	Limited to only three categories on Kickstarter.com. Cross referencing of data with Crunchbase makes it hard to determine which campaigns truly received follow on funds. Study is not able to distinguish if follow on funding is due to the campaign exceeding its funding goal or the project quality.

2.4.4 Founder Theme Prosocial vs. Economic

A review of the founder theme of the CF research indicates that the research is nearly split into half focusing on CF as an economic phenomenon and the other as prosocial behavior. The studies have a strong focus on the effect of signals in CF. For instance, signals of quality such as updates by the founder, spelling errors (Mollick, 2014); entrepreneurial and virtual orientation (Moss, et al., 2015); signals that require a greater amount of time and effort, such as reward levels, staff selected pick, previous founder support, project description, images, homepage link, FAQ questions, and social media buzz (Kunz, et al., 2017); and by having an exceedingly number of backers all have significant influence on achieving funding success (Thies, et al., 2019). Other studies indicate that certain project characteristics are associated with successful funding, such as setting low funding targets, short campaigns, having a female

founder or a team of founders (Frydrych, et al., 2014; Chan et al., 2018). Additionally, founders who wish to launch repeat projects in the theory and games category must be able to access backers outside of their inner circle (Davidson, & Poor, 2016). Moreover, founders that are seeking to acquire funds from professional investors should have a significant amount of social capital and a patent for their product (Roma, et al., 2017). Finally, in equity-based CF, founders should focus on providing updates that focus on campaign development, new funding, business developments, and cooperation projects in order to attract more participation (Block et al., 2018).

In contrast, the founder studies that focus on prosocial behavior mainly investigate various aspects of social capital and how it influences backer behavior. For example, internal social capital (previous founder funding) are more important than professional connections (Colombo, et al., 2013); individual social capital significantly increases likelihood of success, whereas, territorial social capital has a negative effect (Giudici, et al., 2013); geographic characteristics such as local altruism are moderated by localized relational capital in the relationship to achieving funding (Giudici et al., 2018); and focusing on the communication and content increases social capital (Leone & Schiavone, 2019). Other studies cite how setting high bid levels and providing frequent announcements increase the amount of support for a project (Wu, et al., 2015); as well as first time founders who use a combination of media and garner positive backer comments can greatly increase the likelihood of success (Courtney, et al., 2017). Moreover, technology projects led by female founders outperform men due to homophily and the relationship is moderated by activist homophily (Greenberg & Mollick, 2014). Finally, one study found that the founder is more important than the project in the artistic category and they can increase their success rate by increased mentions of their name across the project description

(Gafni, et al., 2019). The economic and prosocial founder focused studies are summarized in table 2.5.

This second stream of research begins to peel the layers to the first side of the CF coin by investigating through a founder perspective what factors help them achieve funding success or influence the behavior of founders. Now that the literature review is complete on the founders' side, the next step is to review the literature that investigates the second side of the CF coin. Consequently, I will begin the next section by reviewing the literature that takes a backer perspective.

Table 2.5. Founder Theme; Economic vs. Prosocial

Economic	signals of quality + video + updates - spelling errors + network size + entrepreneurial orientation + virtuous orientation + reward levels + staff selected pick + previous founder support + project description + images + homepage link + FAQ questions + social media buzz + large number of backers	Mollick, 2014; Moss, et al., 2015 Kunz, et al., 2017 Thies, et al., 2019
	+ low funding target - campaign length + more than one founder + female founder	Frydrych, et al., 2014 Chan, et al., 2018

	+ backers (all categories) + pledged theory category + pledged games category	Davidson, & Poor, 2016
	+ patent + social capital	Roma, et al., 2017
	Updates that focus on: + campaign development + new funding + business developments + cooperation projects	Block, et al., 2018
Prosocial	+ internal social capital (founder funding) + individual social capital - territorial social capital + local altruism + localized relational capital (moderates) + communication and content	Colombo, et al., 2013; Giudici, et al., 2013; Giudici, et al., 2018; Leone, & Schiavone, 2019
	+ high bid level + announcement (frequent) + first time founders + use of media + positive backer comments (backer sentiment)	Wu, S., et al., 2015; Courtney, et al., 2017
	+ women founders outperform men + female backers support technology projects led by females + activist homophily moderates relationship	Greenberg, & Mollick, 2014
	+ founder name mentions + founder more important than project	Gafni, et al., 2019

2.4.5 Investigating Funders

The third theme that emerges in the CF literature is one that investigates the second side of the CF coin. Studies that focus on the behavior and motivations of funders comprise the majority of this theme, while others look at successful funding. The first theme introduces the environment of interest, crowdfunding. It sets the stage to the investigation and was more of a general one that looked at why people participate in CF. As previously mentioned, CF is a two-sided coin. On one side you have the founders and on the other you have the funders or backers. After examining the environment, the two other themes begin to emerge. This begged the question of categorizing the research by looking at what founders should do in order to acquire capital from funders. As summarized in tables 4 and 5 it provides valuable information; however, what is not clear is whether or not the funders are actually being influenced by the actions of founders. Furthermore, are funders more influenced by other funders rather than by the actions or characteristics of the founders? Thus, the third theme and other side of the coin (the funders) will follow. The articles summarized in the following section attempt to answer the aforementioned funder questions.

One of the first studies to empirically investigate the funder's perspective was Kuppuswamy & Bayus (2013). In their study, the authors follow previous studies and examine data from the Kickstarter platform in order to study the role of social information in the dynamic behavior of funders. Utilizing the bystander effect of social psychology theory, the authors argue that because backers can see the level of support from other backers prior to making their own decisions it will have a negative effect on their funding decision.

Kuppuswamy & Bayus cite the work of Latane and Darley (1970), with regards to three different psychological processes that can interfere with the decision process of a bystander. The

first deals with individuals not helping because they assume someone else will do so, which is otherwise known as 'diffusion of responsibility'. The second is pluralistic ignorance/social influence where bystanders look for overt clues as to how to act. In the case of bystander effect, individuals do not interfere because the lack of support suggests that lack of it being an emergency. The final process is evaluation apprehension or audience inhibition where bystanders do not engage for fear of being embarrassed if they misinterpret the situation. Accordingly, they offer up two hypotheses to test their theory. The first focuses on the funders not contributing to a campaign based on the diffusion of responsibility, it states "The likelihood a reward-based crowdfunding project receives additional backer support is negatively related to its past backer support" (p.6). The second hypothesis deals with the presence of a deadline, in this case the closing of the CF campaign. The authors argue that in the presence of a deadline, the bystander effect is reduced. Consequently, they propose hypothesis two as, "The effects of past backer support for a reward-based Crowdfunding project are moderated by time in the project's funding cycle so that the effect of past backer support for projects in the later stages of funding is larger than that for projects in the earlier stages of funding" (p. 7). Finally, they note that these effects operate during the time period before a project has met its target for funding, thus the funder's behavior would be different due to the fact that the project no longer needs funds.

In order to test their hypotheses, the authors employ an econometric analysis of two years' worth of projects from (2010-2011) Kickstarter.com. Their analysis confirms both the first and second hypotheses. Some other interesting findings of their analysis include, the likelihood of receiving contributions is greater on weekdays than on weekends with Monday being the greatest and tapering off through Friday. They also find that increased communications from the founders were positively related to the likelihood the project receives new funder support. In

summary, the study confirms the bystander effect for backers in that potential backers do not contribute to a project that has already received a lot of support but has not yet met its funding target. However, this effect diminishes over time, especially in the presence of a looming deadline (e.g. the campaign coming to a close).

While the study provided valuable insights into the behaviors of funders in reward-based CF, the study overall is still lacking. First of all, the authors only focus on the signals that are sent to potential funders by the presence of existing funders to a project. Moreover, while they do control for project heterogeneity across the categories, they do not attempt to include a measure of individual project quality. Consequently, they do control for the amount of funding being sought and duration of the campaign, but they ignore the number of rewards or funding levels available to potential funders. For example, founders have the ability to limit the number of slots available for different funding levels. Therefore, it could be argued that the lag or delay in funding may not be a result of bystander effects but rather a consequence of the remaining funding levels that are available to potential funders. Thus, more investigations are warranted in order to better understand the behaviors of funders.

Another article that attempts to further investigate the behavior of funders in CF is an empirical investigation performed by Burtch, Ghose & Wattal (2013). Their study focuses on how the role of information influences the behavior of funders. Moreover, they identify how the information of prior contribution behavior that includes the amount and timing of others contribution contributes to behavior in terms of social influence. Specifically, they seek to answer the following research questions:

> *"What effects do observable indicators of others' prior contribution decisions in a crowdfunded market have on later participants' contribution decisions? Is the pattern of*

contribution in the funding phase associated with project performance, and if so, what is the nature of that association" (p. 4)?

The authors note the availability of information available to other potential funders about those who have already funded a project on a CF platform. This includes who has funded, how much that individual has provided and even when they have contributed. Burtch et al., argue that access to this information allows prospective funders to gauge the market for the project and assume what future contributions may be. Accordingly, they develop a new measure to determine the timing and amount of prior contributions that are available to a potential funder, which they call 'contribution frequency' and is defined as the average amount contributed, per period, as of a given point in time (p. 5). Furthermore, the authors suggest the presence of two economic models to explain funders' contribution. The first is a reinforcement model, which is suggested to be cooperative or reciprocal behavior and the other is a substitution model, which predicts altruistic behavior and crowding out (p. 4).

In order to test their assumptions, the authors utilize a sample gathered from a Journalism focused CF platform. They do not name the platform, but it is likely Spot.Us, which is now defunct. They build two models for their examination with the first being focused on the antecedents and the second focused on the consequences of contribution patterns. The findings of the antecedent's model include proof of a substitution effect in funders' contribution to online journalism, which they argue it implies that altruism is a key incentive to contribute in CF. Moreover, the first model indicated that the more frequently others contributed, the less the amount funders were inclined to give decreased. Consequently, the substation effect implies that donations are subject to crowding out. With regards to the consequences model, the findings indicated that the length of the campaign played a significant role in that the duration indirectly

influences the ultimate consumption of the journalism project's story, as this determines the level of promotion the story pitch receives in the marketplace before it is finished. Moreover, it appears that the longer the funding period, the more likely the project is to have a higher performance. Finally, the findings of both models suggest that it may be possible to leverage data on aspects of the contribution process in the earlier stages to predict later performance (p. 32).

The study by Burtch et al., gave another perspective on how funders behave based on the prior funding behavior of others in a CF environment. The study findings were similar to Kuppuswamy & Bayus (2013) in that they both found that the more other people donate the less amount a person is willing to give to the project. The key difference between the two is that Kuppuswamy & Bayus do not focus on the dollar amount but rather suggest that potential funder's are less likely to fund, whereas Burtch et al., findings indicate that funder's are still likely to give, but the amount they do will decrease due to others support. Interestingly, the study is the first to suggest that a longer duration for a campaign is more likely associated with successful performance.

While these findings continue to extend the literature, they are not without limitation. First of all, the platform selected is of concern because it is very narrow in focus and thus the findings likely will not apply in other platforms. For instance, the finding that the longer duration period is attributed to a greater likelihood of successful performance appears to be unique only to this platform as other studies such as Mollick (2014) found the opposite. This could be due to the fact that journalism needs to be nurtured and is not a project that can become consumed like a product or service would. Perhaps, the findings could be applicable to the book category in Kickstarter and other CF platforms; however, writing journalistic stories and authoring a book are quite different. Moreover, the industry landscape may no longer be valid with the evidence of

the platform becoming defunct and the struggles that have plagued the newspaper industry. Consequently, more investigations examining social influence are warranted.

Another study that takes a look at the how social influence affects funders' behavior is one developed by Koning & Model (2013). The authors note that CF has 'democratized' access to investment by tapping into the 'wisdom of the crowd', which allows for information to be transparent and publicly available along with the ability to communicate with the project founders. The authors argue that CF has a dark side due to the role social influence plays in channeling funding. In essence while everyone has a vote in CF by way of providing a contribution, each vote is not necessarily equal or weighted the same. Moreover, they suggest that the size of a contribution will impact the likelihood of success of a project. Specifically, they posit that the likelihood of success increases with the greater the size of the contribution made.

In order to test their assumptions, the authors perform an experiment by randomly funding 320 projects on the DonorsChoose CF platform with the purpose to identify if social influence has any impact on changing the outcomes of campaigns. Of the 320 projects, half (160) were provided with a $5-dollar donation while the other half were provided with a donation of $40 dollars. The findings of the experimental study indicated that those projects, which received the $5-dollar donation, appeared to be less likely to be funded and took longer to reach their funding goal when compared to the control group of projects randomly selected to which no funding was provided. On the other hand, the projects that received the $40-dollar donation appeared to be funded at a faster rate and were more likely to be funded.

Koning & Model (2013) argue that the small donation may be perceived as a signal of low quality and thus may cause some potential donors to simply not give, whereas the opposite effect occurs based on the larger donation. Moreover, they suggest that these findings provide

evidence of herding dynamics that are attributable to the larger funding amounts. Interestingly the authors point out "this asymmetry in influence due to the size of donation implies that not only do those with the resources to make large contributions have disproportionate influence but paradoxically that those with limited means may actually undermine their own preferences by participating in CF marketplaces" (p. 17). Consequently, they suggest that their findings indicate that funding outcomes are dictated by the wealthiest participants as measured by those who donate the most as opposed to the 'wisdom of the crowds'.

Koning & Model uncover the dark side to CF in their experimental study. Although the findings are fascinating, they appear to be confined to certain situations or environments. I do not believe that the findings of this study would be applicable to other types of CF such as equity based, lending based, or reward based. I would argue that this is the case due to the fact that in donation-based CF funders are not seeking a return on their investment, whereas in the aforementioned types funders are seeking some type of return on investment. Therefore, a risk exists with the size of the funding amount provided. For example, in a donation-based CF platform such as DonorsChoose, the funding provided may be tax deductible. In equity, lending, or reward-based CF potential funder's may not be as willing to make a sizeable contribution if they do not perceive the project to be a good investment. As a result, it would be helpful to distinguish between funding provided as a donation or those that are seeking a product or some type of return for their funding. Moreover, it would also be beneficial to see what other types of factors affect funders' behavior outside of social influence.

One group of authors attempts to begin looking into different factors when it comes to backers. Lin, Boh, & Goh, (2014) utilize Kickstarter data to group backers into different archetypes, with each one having their own characteristics. The authors argue that previous

research has looked as backers as a homogeneous group and does not take into account their differences. Using cluster analysis, they identify four groups of backers which they categorize into ‘active backers’, ‘trend followers’, ‘the altruistic’, and ‘the crowd’. Each group of the groups possesses their own characteristics.

For instance, active backers tend to back a larger number of projects and are more likely to launch their own as founders. They also have an increased number of comments per project and their interest is broader across categories. Moreover, the authors state that “active backers can be thought of as investors who are looking for high quality projects, consistent with the conceptualization of crowdfunders” (p. 17). Trend followers appear to possess a lower risk tolerance as indicated by supporting projects with a smaller average goal size and those with a large number of backers. This indicates that they support less risky or highly popular projects by following the trend of other backers and appear to be motivated more by rewards rather than social or altruistic intentions. Backers in the altruistic cluster separate themselves from others by backing projects that typically do not have rewards, have higher monetary goals and typically have a fewer number of backers. These backers do not seem to be driven by rewards nor do they seem to care about the risk level or popularity of a project indicating that altruism may be the underlying motivator. The final group is comprised of the crowd, which is moderate when compared to all the aspects they were measured on. As stated by the authors, “this group is neither more likely to back the most popular projects with the largest number of mean backers, nor are they more likely to back the least popular projects with the smallest number of mean backers” (p. 17). This suggests that they may be inexperienced and still new to the CF platform having yet developing a strategy towards investing in projects.

After proposing the four different archetypes, the authors posit a set of hypotheses that investigate how the archetypes react to different types of signals along with the behavior of other backers. Their findings indicated that backers are more likely to support founders that back other projects; provide funding during the early stages of the campaign; and are drawn to projects that have a larger number of backers. The authors study provided a unique perspective on backer motivation by proposing that individuals that provide funding to projects can be clustered into four different archetypes that are suggested to have their own individual motivations. While, very interesting, the article is significantly limited. As noted by the authors,

> *"We do not explicitly measure the motivations of the backers, as the underlying motives of backers can only be gathered through interviews and surveys. Instead, we make use of the historical backing behavior of backers to determine what behavioral profiles and crowdfunding strategies the typical backer exhibits, and infer their overall motivational profile from a portfolio of variables that represent backers behavior" (p. 11).*

Consequently, further studies into backer motivation are warranted. For instance, do these proposed archetypes operationalize similarly on other platforms or different types of CF? The authors only utilized data from Kickstarter.com to develop their groups.

A new theoretical lens is introduced into the CF context and utilized by Allison, Davis, Short & Webb (2015) to examine funders' behavior. The authors draw on cognitive evaluation theory to measure how funders respond to cues provided by founders that indicate whether their projects represent a business opportunity or an opportunity to help others. The authors note that CF provides a suitable environment to investigate cognitive evaluation theory, which suggests that extrinsic rewards diminish intrinsic motivation by hindering the satisfaction one receives for actions they would otherwise engage in (p. 54).

In their study, the authors utilize the CF platform Kiva.org, which is a lending-based platform that does not provide any return on investment to funders. The individuals seeking funding on Kiva.org are those that fall into the microlending environment and who are typically considered impoverished entrepreneurs seeking financial capital. The investigation is focused on trying to better understand what intrinsic and extrinsic cues influence the types of loans they gravitate towards. Accordingly, they hypothesize that funders will be more inclined to back projects that that signal an opportunity to help others rather than those that signal a business opportunity.

In order to test their hypotheses, the authors utilize the project narratives provided by the founders that signal what the goal of the project is. An analysis of over 36,000 loans based across 51 different countries were reviewed using the content analysis methodology known as computer aided text analysis. Intrinsic signals were measured through human interest language and diversity language. Extrinsic signals were measured by profit language and risk-taking language. The dependent variable is operationalized as time to funding or how long it takes for the loan to achieve its funding target.

The findings of the study suggest that the extrinsic signals by founders as measured by the profit and risk-taking language hinder the intrinsic motivation of funders to provide capital to the projects. Moreover, the intrinsic signals focused on human interest language appear to strengthen the intrinsic motivations of funders to provide capital to projects. Importantly, the authors note the significance of aligning the intrinsic signals they provide regarding their projects to the intrinsic motivations possessed by funders. Moreover, they argue that this goes against traditional signals that are generally positive in acquiring capital such as a focus on emphasizing

potential profits. Thus, they contend that what may work in traditional financing may have an adverse effect in a prosocial lending environment.

The findings of the Allison et al., 2015 provide a unique look into the funders perspective and how certain signals appear to affect the motivations of those providing capital utilizing the lens of cognitive evaluation theory. Notably, the study is fraught with limitations. The challenge with the study is that it takes place in a microlending environment where the average loan amount is just over $600 dollars. Moreover, one could argue that the CF platform studied Kiva.org, is not a true lending-based platform but rather a hybrid between charity and lending. This is due to the low amounts of funds sought and provided along with the fact that most funders go into the platform with the expectation of not being repaid. While, microlending is an important tool for impoverished entrepreneurs worldwide, it is difficult to compare it across the types of CF. Particularly, the authors note that future research is required in order to examine whether the findings hold true across other types of CF such as reward and equity based.

One study that attempts to understand the motivations of funders in reward-based CF is Boudreau, Reichstein, and Rullani (2015). The authors attempt to make the argument that rewards are more like donations because ultimately, the public will benefit and thus they are not true rewards to those who give. Furthermore, they suggest that this is due to the "Free-Rider" problem, which implies that everyone who does not fund a project will be able to use or access the product in the marketplace off of the backs of those who did provide funding. In order to test their hypotheses, the authors examine reward-based CF.

The authors argue that in order to gain a deeper understanding of funders motivation, it would be more informative to study multiple data sets on a representative project (p. 3). Consequently, they selected the CF project for the online game 'Natural Selection'. For this

particular campaign, the founder had developed the first version of the game by completely covering all the costs himself. In order to provide players with updates and new versions of the game, he set out to have an ongoing funding campaign where individuals could give money in exchange for rewards such as special avatars that were only available to those who gave funds. It is important to note that the game is accessible to all and is not exclusive to those who contributed to its development campaign. Instead of utilizing a CF platform, the founder sought out funding using PayPal via the game's website. Throughout the campaign the founder would engage with potential funders by providing frequent updates via the website's blog.

The authors looked at data across the 314 weeks that the campaign lasted and performed a survey that provided self-reported motivations of funders who provided capital in exchange for rewards during the CF campaign. Using an econometric model, they tested five hypotheses that attempted to shed light on the funder's perspective. The findings include a positive relationship between funding and the rewards available only to funders. CF was unrelated to rewards available to both funders and non-funders (e.g. final product). Other findings included the motivation of funders sense of contributing to a 'common cause' by supporting the project, a desire to 'pay back', and the desire to signal their funding to the public. Similar to Allison et al., (2015) it appears that funders in this campaign also contribute due to their intrinsic motivations to give back. Moreover, in this study the authors note the presence of the 'Free-Ride' problem, it is analogous to the behavior of funders in both Kuppuswamy & Bayus (2013) and Burtch et al., (2013) in that potential funders are less likely to give to the project because they assume others will give.

This study is significant in that it takes a deep dive into the numerous amounts of activity that occurs across one long CF campaign. However, despite its interesting findings, it is hard to

argue that this amounts to no more than a case study of one project and lacks breadth into the motivations of funders. For example, the campaign lasted over six years. This could be considered an anomaly when compared to other CF research in which the majority of the platforms studied cap the duration of the campaign to a maximum of 60 days. Additionally, the fact that they identify it as one campaign is probably a bit of an oversimplification. It is more likely that this project could be looked at as a series of campaigns. The authors could have broken up the time periods by separating it across the various milestones or versions provided by the founder. Moreover, notwithstanding their finding of individuals experiencing a sense of giving back and being a part of a common cause, this appears to be tautological in the sense that they are already customers and active participants in the online community game and thus are already willing participants to the cause. Thus, the argument that the authors make regarding reward-based CF being donations rather than rewards does not appear to hold. It is more likely that the money given to the campaign would be viewed as consumer consumption (i.e. the cost of consuming a good or service) rather than a donation.

One study that takes another step into understanding funders motivation to providing capital in CF is Cholakova & Clarysse (2015). Their study seeks to investigate the degree to which financial or nonfinancial incentives govern the choice of whether to give money towards equity or to a pledge. The authors attempt to investigate funder motivations in both reward and equity-based CF simultaneously. Furthermore, they discuss the assumption that funders participating in reward-based platforms are motivated intrinsically whereas those participating in equity-based platforms are motivated by financial or extrinsic motivations.

In order to address their research questions Cholakova & Clarysse utilize an equity-based CF platform from the Netherlands where they ask all registered investors to participate in a

quasi-experiment. They are able to partner with the platform itself and thus are able to contact the funders directly. In the experiment they provide investors an example of an innovative project that they identified from Kickstarter.com; however, all references to Kickstarter are removed and thus they present the opportunity as unique. In the first the opportunity to fund a reward-based project, if they decide to fund it, they are then offered the ability to fund the same project but with an equity component rather than a reward one. Utilizing self-determination along with cognitive evaluation theory they seek a better understanding to funder motivations.

The findings include, funders are propelled by financial or utilitarian motivations for both equity investing and reward-based giving. In contrast as to the suggestions of other studies that argue non-financial motivations such as helping others, supporting ideas or belonging to a community are reasons for funders providing resources to projects. Non-financial motivations play a secondary role to inform the decision to pledge (p. 159). Key to campaign success is offering attractive rewards that appeal to the financial and utilitarian motivations. Finally, "trust is the only nonfinancial motivation that plays a role in the decision to pledge" (p. 159).

The study presented an opportunity for an interesting experiment to test funder motivation in both an equity and reward-based environment. One of the issues with this study is the CF platform that was utilized, SYMBID is primarily an equity-based platform. The individuals that took part in the experiment were members seeking out equity projects. Thus, their perceptions could be skewed when offered a reward-based project on an equity-based platform. Moreover, the authors state that they utilized an 'innovative' project from Kickstarter.com; however, they do not attempt to measure the impact of the level of innovativeness. This begs the question of whether the innovativeness plays a role in the

motivations of funders. Additionally, it makes one wonder what other unique factors such as innovativeness may influence funder motivation.

One investigation that looks at a unique potential motivating factor is Lin, and Viswanathan (2015). In their study, they attempt to investigate whether or not funders have a home bias when selecting what projects to fund. More specifically, they look at whether or not funders prefer projects that are closer to them. This presents a unique approach because while other works such as Allison et al., (2015) have looked at intrinsic or extrinsic motivations, this particular study keeps it simple and looks at how geographic proximity motivates funders.

The authors argue that in an online marketplace not bound by geography in which anyone anywhere can participate, funders should not have a preference towards projects that are close to them. In order to test their assumptions, the authors utilize the CF lending-based platform Prosper.com. Employing a dyadic analysis along with a quasi-experiment they empirically examine the existence of home bias in lending based CF. Utilizing the data from Prosper.com the authors analyze transactions within standard market circumstances over a lengthy period and are able to perform a natural experiment during which conditions were restricted to investments across one state due to regulations. Their findings indicate that funders appear to have a preference of funding projects near them (e.g. within their home state). Furthermore, they offer that information through social networks and home state residence may serve as signal for borrower quality (p. 12). Finally, they indicate that the home bias lending in CF may be due to social or behavioral reasons as opposed to economic ones.

The study sheds some light into the insights into the behaviors of backers in CF. However, it is limited by the fact that it only looks at lending-based CF. While this is a unique contribution, the profile of backers in this CF context are actively seeking a monetary benefit via

a return on investment by providing funding to those seeking a loan. Consequently, the effects may not be generalizable. Moreover, it is not clear whether Prosper.com is available to everyone or whether one requires to have a certain amount of assets or net worth to participate as a lender. Although, location appeared as a factor in the investment decision, it is important to determine what other factors influence the backer funding decision.

Another study that takes a look at backer motivation is Andre, Bureau, Gautier & Rubel (2017). The authors introduce the concept of reciprocal giving into the reward-based CF literature in order to attempt to better understand why backers give. They note that reciprocal giving differs from a traditional economic exchange in that it establishes an affective relationship, whereas there is no emotional connection between a buyer and a seller. Furthermore, they suggest that it is an alternative kind of relationship to transactions and that as a result of reciprocal giving, people become permanently and mutually indebted to one another (p. 316).

In order to test their theory, the authors utilize French CF platform Ulule. In this platform, backers that pledge money have the option of asking for a reward, not ask for a reward, or give an amount that is greater than the reward selected. The findings indicate that CF projects that rely on transactions are more likely to fail than those with backers who are engaged in reciprocal giving by either providing more funding than the reward level or by providing funding without requesting a reward. Their results also indicated that technology projects perform poorly and acquire significantly lower levels of funding than the other categories. Accordingly, the authors suggest that gift giving is key in reward-based CF.

There are various challenges with the findings from Andre et al., (2017). Most notably is the CF platform utilized. Ulule is a hybrid platform that allows for charitable giving. Charity or

donation-based platforms do not provide rewards; thus, it is too difficult to distinguish the effects of the study. It may have been more suitable to use a dataset from a pure reward-based platform and not a hybrid one. Moreover, with regards to the technology projects findings, they may be attributed to the fact that Ulule may not be an appropriate platform for this type since it is a hybrid between reward based and donation based.

In an effort to understand the motivations of backers, Greenberg & Mollick (2017) introduce the concept of homophily into reward-based CF. In their study, the authors attempt to determine whether it is more likely for women entrepreneurs to receive funding via CF as opposed to traditional forms of acquiring venture capital. Accordingly, they develop the concept of 'activist choice homophily' which is separate from induced and interpersonal choice homophily. Induced homophily occurs when people gravitate to those with similar characteristics and interpersonal choice homophily occurs as a form of self-love in which individuals may support others because they see themselves in them. Activist homophily occurs from group-level identity, as opposed to sharing similar individual characteristics or fondness/self-love.

Greenberg & Mollick (2017) argue that activist choice homophily will have a stronger effect on funding decisions compared to interpersonal choice homophily and induced homophily. Consequently, they claim that activist choice homophily accelerates the motivation of female backers to help a co-group member acquire funding because of the similarly shared social position and common barriers faced. In order to test their hypotheses, the authors perform two studies. The first is a two by two experiment design that utilizes the most successful technology campaign on Kickstarter.com. They provide the project in two separate examples, one as a female founder and the other as male and survey students. The other study utilizes randomly selected projects from Kickstarter that identifies the founder and backer genders.

The findings indicate that women are considerably more likely to successfully raise capital than their male counterparts. Moreover, women are successful in areas where they are least represented, such as the male dominated technology industry. Consequently, the authors suggest that this is due to effect of activist choice homophily, which suggests that a backer's motivation is to help a founder that shares one's gender in order to overcome the structural barriers associated with a shared categorical identity. Thus, the authors suggest that CF may be the exception to the rule of women entrepreneurs being able to raise capital for new ventures in areas they have been typically underrepresented.

The findings of Greenberg & Mollick (2017) provide insight into the motivations of backers particularly as it pertains to how they support women founders. However, the results are limited in that they survey students on an experimental basis rather than attempting to survey the actual backers themselves. Moreover, the first study only utilizes one project and it does not take into account the quality of the product. This factor could influence the effect of the three forms of homophily they test for and thus influence the backer motivation. Consequently, further studies into the motivation of backers are necessary.

A study by Cox, Nguyen, & Kang (2018) borrows from Andre et al., in that they look at backer motivation by separating those which accept a reward and those that do not. In their study the authors analyze data from reward-based CF platform Fundanything.com to examine to what extent the behavior of backers is affected by the opportunity to claim rewards, interactions of image enhancement, and intrinsic/extrinsic motivations. The authors argue that backers indicate their motivation as being either greedy or altruistic based on whether or not they accept a reward. Furthermore, they suggest that the presence of incentives which appeal to the extrinsic

motivations of backers may unintentionally ‘crowd out’ motivations related to image enhancement (p. 189).

The authors analyze all the recorded CF campaigns on Fundanything.com between 2013 and 2015, which encompassed 54,727 pledges across 2,143 campaigns. The findings indicate that backers are mainly motivated by rewards as shown by the fact that backers identified as solely intrinsic gave approximately 23% less than extrinsic backers. Additionally, they found intrinsic backers that were not anonymous gave more than intrinsic backers that were anonymous. The authors argue that the results do not support their hypothesis of a crowding out effect. Ultimately, backers are more motivated by rewards rather than simple altruism along with both extrinsic and intrinsic backers being positively associated with the desire for image enhancement.

The study by Cox et al., (2018) goes against findings by Allison et al., (2015) that suggest backers are more intrinsically motivated and it reaffirms findings by Boudreau et al., (2015) that indicate extrinsic motivation is stronger in backers. While interesting, the study still suffers from limitations. The main issue with the study is the CF platform of choice, Fundanything.com. This particular CF platform was unorganized and did not attempt to categorize or try to filter project campaigns in any way. Moreover, the platform allowed for founders to post a campaign to seek funds for literally anything from paying medical bills to funding a prototype. This insinuates that the platform is a cross between donation and reward-based CF which the authors did not control for in their study. Finally, like other studies it does not take into account trying to measure the impact of the quality of the project or any other campaign characteristics.

In their 2018 study, Scheaf, Davis, Webb, Coombs, Borns & Holloway look at the quality of a project by the presence of media coverage and patent ownership. The authors investigate the

extent to which signals are effective across different types of stakeholders and exchange contexts (reward versus equity based) and how they interact with other aspects of communication in the entrepreneurs' pitches. Accordingly, Scheaf et al., (2018) introduce the concept of signal flexibility which signifies to the degree to which a signal holds its effectiveness in reducing information asymmetry across a range of receivers needs or demands by communicating the projects quality. The authors extend signaling theory in the context of CF by investigating how signals maintain their effectiveness between reward and equity-based environments. They argue that signals as measured by media coverage and patents along with visual cues in the form of video and text quality affect the judgement of backers based on their heuristics. Moreover, they suggest that these effects vary between equity and reward-based CF.

In order to test their hypotheses, the authors incorporate a multi-method approach where they perform three studies. The first study uses data from Kickstarter.com to examine signal flexibility and the interaction of signals and visual cues. The second performs a qualitative interview approach of 10 funders and how they interpret the signals and visual cues from the campaign pitches. Finally, in the third study the authors perform an experimental conjoint analysis that tests media coverage and patent signals across both equity and reward-based CF.

The results of the studies had various implications and support the notion of signal flexibility as proposed by the authors meaning that the effectiveness of the signal differs between equity and reward-based environments. Backers prefer costly signals related to financial success in equity-based CF as opposed to preferring signals that focus on a founder's ability to deliver rewards in a timely manner in reward-based CF. Consequently, in reward-based CF, backers do not care if the venture is financially viable, rather they care about whether or not they receive their rewards. Moreover, the results showed that high quality video pitches interact with costly

signals that are positively related to the campaign's performance. Additionally, text quality signals had a negative effect on performance.

The Scheaf et al., (2018) study gives a detailed analysis by incorporating a multi-method approach to investigating backer motivation in CF. Some of the limitations of the paper include study two and study three. Particularly in the second study, they only interview ten students and discuss only four campaigns. In the third study, they perform an experiment utilizing sixty-two undergraduate students. While, students have been used for many years across multiple studies, it would have been better if the authors attempted to survey actual backers. Moreover, it would be helpful to investigate what other signals backers may be influenced by.

In a study developed by Wei (2018), the author examines how backers respond to different reward structures in reward-based CF. In the article she notes that there are still various questions that remain unanswered regarding the influence a reward structure has on backers. Some of the questions include, what types of design will strengthen or weaken backers' price sensitivity; what types of rewards are most effective; should restrictions be imposed on certain rewards; and what types of rewards work across different tiers? In order to test her hypotheses, the author collected data from 219 campaigns that encompassed 2,262 different reward offerings. The CF platform where the data is collected from is not named. The author applies a mixed Tweedie model to examine the influence of various reward structures on the number of backers and the funds pledged for each reward level.

The author performs two models on the data, one focused on number of backers and the other on the revenue generated. The results indicate that backers are more interested in material rewards than symbolic ones with the most attractive reward being the product itself and the most negative being a thank you note. Conversely, thank you notes and symbolic rewards in higher

reward tiers have a positive influence on backers. Creative collaborations or feedback are the least attractive to backers. Setting reward limits increases backer's responsiveness; however, this is a negative relationship in the higher reward tiers. As is the case with general consumers, backers are also price sensitive and discouraged by higher prices. In order to entice backers, founders should focus on offering the product and its accessories at lower reward levels which ought to generate more backer support and revenue. In summary, the study provides insight into the motivations of backers with regards to the distribution of rewards across reward levels.

Wei (2018) provides new insights into the motivation of backers by examining how they respond to different rewards and reward levels. However, the study still has some limitations. First off, they do not name the CF platform selected nor whether it was an all or nothing or keep it all model. Moreover, they ignore founder and project characteristics which have been shown to influence backers' decisions on what and how to fund projects. Finally, the finding that backers prefer the product to all other rewards seems tautological.

In order to extend the research into backer motivation further, Zheng, Zhang & Wang (2018) examines backers cocreation behaviors in reward-based CF and how it leads to psychological ownership. The authors examine data from Zhongchou a Chinese CF platform in order to test their hypotheses. Zheng et al., (2018) argue that the value cocreation of a backer affects their psychological ownership for a project via three routes: perceived control; self-rated investment; and intimate knowing (p. 1218).

The results of their research model suggest that backers' psychological ownership of a project is the result of their cocreation in the project, which leads to the backers' commitment to the project. Moreover, it was found that the most important influence on a backer's feelings is a sense of control and feelings of ownership for a project. Additionally, the reduction of

information asymmetry was helped by a backer's intimate knowledge of a project. Consequently, the effects of perceived control and intimate knowing are mediated by project characteristics of founder communication/project updates and social connection between backers. In summary, the study shows the importance of paying attention to backer's experiences and feelings and how improving them can positively influence successful funding.

While the study showed that it is important to pay attention to the feelings and experience of backers in reward-based CF, it may not be as important in other forms of CF. For example, there may not be the same opportunities for cocreation or psychological ownership within lending or donation-based CF due to lack of opportunities for backers to engage with founders. Furthermore, as noted by the authors, the data used is from Chinese CF platform Zhongchou where social capital is more important than in the US and other countries. Consequently, future studies should investigate how psychological ownership is affected by cultural differences.

One study that seeks to examine the motivations of backers in a different culture is Bagheri, Chitsazan & Ebrahimi (2019). Their study borrows from Cholakova & Clarysse (2015) as well as Allison et al., (2015) by utilizing self-determination theory (SDT) to analyze the motivation of backers in donation-based CF in Iran. Similar to previous studies, the authors argue that backer motivations are categorized into either being intrinsic or extrinsic. However, they further state that these motivations can be further classified each into both individual and social dimensions. Thus, intrinsic motivation can be both individual and or social, as well as extrinsic motivation being both individual and or social.

In order to test their hypotheses, the authors take a qualitative approach and perform semi-structured interviews with thirteen different backers that provided funding to donation-based projects on Hamijoo CF platform from Iran. Their findings revealed that backers were

mainly motivated to give to projects based on their intrinsic-individual factors. The factors were made up of the objectives of the project and the founder. Specifically, personal interest in and concerns with the project topic and content motivated the participants to provide monetary support to the charitable projects. These findings support and extend previous research by showing how backers are motivated in a different Asian country.

The study by Bagheri et al., (2019) is helpful but is lacking a greater impact. While it is one of a few studies to actually interview actual funders, they only spoke with thirteen from one CF platform. Furthermore, the absence of rewards or monetary incentives in donation-based CF may hinder the extrinsic motivation of a backer as compared to reward, equity, or lending based CF. Furthermore, the projects supported in the study only concentrated on either filmmaking or art. Thus, investigating other forms of CF as well as including other categories would be helpful.

In their study Dai and Zhang (2019) seek to extend previous research by arguing that backers are influenced to pledge funds as a result of their prosocial motivations. Accordingly, their study offers a more complete view of how founders' goals affect whether, when, and how much backers fund a project. Consequently, they focus on a narrow time frame within the project campaign. The time frame they focus on is when a campaign has reached 95% of its goal through 105% of its goal. Furthermore, they refer to the time period as 'funding collection speed' by backers. Dai and Zhang (2019) argue that backers feel their contribution will make more of an impact to a project if the campaign has not achieved its funding target rather than when it has already reached or surpassed it. Hence, they suggest that backers will give more prior to achieving the funding target than the period after reaching the goal. Moreover, they hypothesize that the funding collection speed will be greater when a project has only one founder.

In order to test their hypotheses, the authors employ data from Kickstarter.com covering the period of September 2016 through August 2017. They then selected projects that fit the funding goal time period of 95% to 105%, which resulted in 5,592 analyzed campaigns. A log transformation is used to test their first hypothesis. For the second hypothesis the authors utilize Amazon MTurk to survey 123 backers in order to determine to what extent they would support a project as well as analyzing projects that list the word 'help' somewhere in their title. Finally, for the third hypothesis they utilize MTurk once again to have participants identify whether the project has one or multiple founders. The findings of the study show that backers are more likely to fund a project and pledge greater amounts of funds to it during the period prior to reaching its goal. Moreover, their tests show that this effect is carried across all Kickstarter.com categories. Furthermore, the effect is magnified amongst categories that backers tend to fund because of prosocial considerations as well as among projects that specifically ask for help in their title and those with one founder.

While the authors study provided a very detailed insight into the perceived motivations of backers in reward-based CF, it still has some limitations. First off, the study takes a look at a very narrow time period, which is just before a campaign reaches its funding target to the period shortly after. It completely ignores probably the most significant part of a campaign period, its launch. Moreover, they also do not consider project or founder characteristics such as quality or innovativeness of the project nor founder education or industry experience. Furthermore, because it only looks at Kickstarter projects that were successfully funded, it is impossible to tell whether this would hold true in a keep it all platform such as Indiegogo.

Consequently, Kim & Viswanathan (2019) study focuses on the support provided by experienced backers during the launch of a campaign and how it influences the support of other

backers. They utilize the CF platform Appbackr, which appears to be a type of hybrid between lending and equity-based CF. In this platform investors can provide funds to a founder who is seeking to develop a mobile application or has one that is finished but needs funds to further commercialize it. In both cases what the investors are essentially doing is purchasing the apps at a wholesale price and as they sell in the Android store the investors get a return on their investment. It is important to note that the investors get paid on a first come first serve basis, meaning that early investors receive their return before late investors. The authors examine the difference between experienced and non-experienced investors.

Kim & Viswanathan (2019) categorize the experienced investors into two separate categories. The first they define as 'App Developer' Investors or those who possess experience with regards to the development of apps, the other group is 'Experienced Investors', these investors have knowledge and experience with regards to investing in other apps. The analysis looks at whether the experienced investors are more likely to invest early and how their investments influence the remaining crowd. The findings of the study indicate that both categories of experienced investors are inclined to invest early in the campaign. Moreover, the App Developer Investors were more likely to invest in projects that were yet to be developed and in the conceptual stage. Whereas, Experienced Investors invested early in already developed or 'live' apps. Furthermore, the past performance of experienced investors was also influential, particularly when it was in the same category as the app seeking funding. There past performance appears to serve as a signal of quality and credibility to the crowd or non-experienced investors.

This study shed light on how experienced investors can influence the crowd in CF. One of the challenges with this study is the way the Appbackr platform works. Because investors get

paid on a first come first serve basis, it is in the best interest of experienced investors to pledge money early in order to manipulate the market and gain more funding for the app, which is beneficial to them in ensuring they see a return on their investment. Moreover, as the authors note the amount of investment sought by app founders is much smaller than would be sought in traditional forms of financing. Furthermore, they also note that there is no way to tell if the experienced investors utilize outside channels such as word of mouth to influence other investors to pledge funds.

One study that also takes a look at the motivations of backers in reward-based CF during the part of the campaign that is near achieving its funding goal is Li & Wang (2019). Similar to Dai & Zhang (2019), their window of analysis focuses on the time of the campaign when it is reaching its goal. It constitutes no more than a 48-hour period from the threshold-reaching time interval of before and after. The select a unique dataset from Kickstarter.com that records the backer activity on a bi-hourly basis for 1,058 successful projects. The dataset was gathered using a data crawler to extract project information every two hours from the period of October to December 2015. The authors also focus on the prosocial motivations of backers during this time frame and how it influences their behavior.

The authors differ from Dai & Zhang (2019) in that they divide all the projects into to two categories, public or private good projects, which they base on the nature of the rewards offered. Accordingly, they argue that the backers will be influenced by their prosocial motivations to give to projects and that those in the public good category will have a stronger influence. The findings indicate a sudden increase in backer pledges during the time before meeting the funding goal as opposed to after. These effects are magnified within the public goods category. Furthermore, the authors argue that this indicates backers are more motivated by

prosocial intentions because providing funds prior to a campaign reaching its goal signifies uncertainty in the product succeeding. Whereas providing funds after goal achievement signifies a reduced risk and an economic motivation on whether or not to purchase the product.

The study adds to previous findings regarding backer prosocial motivation of funding projects in reward-based CF. The study though still faces some limitations. It does not take into account other methods founders may use to promote their campaign outside of Facebook and Twitter. A previous study by Leone & Schiavone (2019) also considered the use of YouTube and media coverage to measure the sharing of a campaign. There sample excluded projects that met their goal in the first three days of the campaign. Consequently, one cannot infer if the same findings hold true for highly popular projects.

A study that takes a different approach to examining backer motivation is Radoynovska & King (2019). Their study focuses on authenticity literature in order to evaluate how backers assess the authenticity of a projects and how these perceptions influence their support of the campaign. The authors focus on three dimensions of authenticity: moral, idiosyncratic and categorical that individuals utilize to determine whether or not they consider an organization authentic. Moreover, they argue that backers are influenced by the authenticity of an organization in terms of providing support in CF. Furthermore, this relationship is mediated by likeability and competence. Accordingly, the authors perform three studies to test their hypotheses. First, they utilize a sample of 150 randomly selected projects from Indiegogo that they use to survey 447 subjects recruited through Amazon MTurk. Next they perform an experimental design where 296 MTurk subjects participated in a 10-minute study. The third study uses nine of the CF projects from the original 150 for an online survey of 284 participants.

The findings suggest backers can feel an organization is authentic across any of the three dimensions of the authenticity scale (moral, idiosyncratic, and categorical). The key is that if they do feel the organization is authentic, they are more likely to support it. Moreover, the effect is magnified with regards to the likeability of a project but not the competence of a founder. Furthermore, the findings suggest that the dimensions of moral and idiosyncratic are those that primarily determine the authenticity of a project. Consequently, organizations may attain authenticity in various methods, which include signaling a commitment to intrinsic/moral values and signifying their uniqueness/idiosyncratic relative to other projects.

The limitations for this study include the 150 randomly selected projects used in their questionnaire. The authors had to exclude and adapt various amounts of items from each of the campaign pages, which included photos, videos, progress toward the goal, number of funders, backer comments, and rewards. Hence, what was presented to the participants was very vanilla and not nuanced enough to take into account project and founder characteristics effect on the findings.

In contrast, the study by Shahab, Ye, Riaz & Ntim (2019) does take into account characteristics such as updates and feedback and how they can influence backer decision making. Their study examines the impact of online feedback on Chinese CF platform Demohour and how it helps reduce information asymmetry as well as what role social capital play in backers funding behavior. The authors argue that feedback affects CF in three distinct forms, which include reducing information asymmetry between founders and backers; positive and negative feedback can increase or decrease the amount of backer support; and backer comments can help founders tweak their projects to increase the likelihood of funding.

Shahab et al., (2019) analyze 620 CF campaigns across eight categories on the Demohour platform. Their findings indicate that a backer's decision and motivation to pledge funds to a project is dependent on the feedback of others, social capital and quality of the project (p. 264). Backers are influenced by regular updates regarding the project from the founders, which they consider to be the main indicator of project quality and are likely to invest more as a result. Consequently, the study suggests that founders should focus on feedback signals in order to ensure successful funding achievement. This study adds to previously reviewed works that indicate signals can influence backers funding behavior. It is unique because it looks at how this effect takes place in a Chinese context.

One of the issues of the study is the fact that Demohour requires mandatory feedback from the participants. Nearly all other CF platforms allow for voluntary feedback if at all. Demohour incorporates three categories for feedback, which include innovation, design and practicability of the project. The backers provide a zero to five-star rating regarding each category. Because this is unique to Demohour it is not possible to try and generalize the findings. While, the study by Shahab et al., provides new insight into the role feedback can play in backers funding decisions, it does not provide other explanations.

A recent study by Wang, Li, Kang & Zheng (2019) expands on previous studies (Allison et al., 2015; Cholakova & Clarysse, 2015; Cox et al., 2018; and Bagheri et al., 2019) that have investigated intrinsic and extrinsic motivation and the influence they have on backers in CF. The authors apply self-determination theory where they develop a research model that integrates its framework into explaining the motivations of backers in donation-based CF in China. They take the research a step further by introducing self-identity and social-identity to examine its relationship to the intrinsic and extrinsic motivation of backers' intention to donate funds.

In order to test their hypotheses, the authors surveyed 588 backers from across various Chinese donation-based CF platforms. Their findings indicate both self-identity and social identity influence the donation intentions of backers across donation-based CF. Furthermore, there are various factors that play a significant role in the formation of self and social identity. Moreover, face concern and perceived donor effectiveness help foster self-identity, which leads to a higher likelihood of providing funds. It was also shown that sense of self-worth and moral obligation were catalysts to stimulating social identity. Finally, both social interaction and referent network size together and individually can strengthen both self and social identity. Wang et al., (2019) study provides a formation path of self and social identity by integrating the factors from the self-determination theory framework and examines them in donation-based CF.

The study while interesting does have some limitations. The main challenge with the study is that is solely focused on donation-based CF an environment where motivations of backers are clearly different than those where they can expect a reward, product, or monetary return on investment. Furthermore, it is limited to China only where the concept of face concern is more prevalent than in countries like the United States. Lastly, the study is silent on the characteristics of the project or founder.

The most recent articles published investigating backer motivations come from Haisu Zhang and Weizhi Chen. The authors published two studies (Zhang & Chen 2019a; Zhang & Chen 2019b) that utilize self-determination theory to examine why backers pledge funding to projects in reward based CF. Zhang & Chen (2019a) looks at two types of backer motivation: (1) other orientation, denoted by altruistic backer intentions; and (2) self-orientation, denoted by egotistic backer intentions. Specifically, the authors seek to determine how a backer's other and self-orientation influence their funding decision on new product ideas; what motivational appeals

founders can use to influence backers and how they affect backer's decision making; and what role gender plays among these relationships? Consequently, the authors perform three studies to test their hypotheses.

The first study focuses on the backer level by performing a survey of 213 participants gathered using Amazon MTurk. The second study utilizes data from Kickstarter.com that looks at 600 projects from the film and technology categories where they examine the linguistics used in the project description. Finally, the third study is an experimental design that tests the moderating effect of gender. The results of the studies included support for the finding that self-orientation is positively related to a backer's funding decision and has a stronger effect than other orientation. The relationship between other orientation and a backer's funding decision was not found to be significant overall; however, it was significant for women. Finally, the relationship for self-orientation was stronger for women than for men. The article by Zhang & Chen (2019a) was an excellent examination into the funding motivation of backers. The analysis attempts to be pretty complete by incorporating both backer and project level characteristics as well as taking into account the role of gender.

Despite the study being well done, it still has its limitations. The authors only focus on two project categories (film and technology). Furthermore, they do not take into account other types of non-financial motivation outside of other and self-orientation, such as the desire to support or connect with a founder. Finally, the text analysis used in order to measure the project level characteristics could have been more robust.

In their second article Zhang & Chen (2019b) again utilize self-determination theory to examine the funding behavior of backers. However, in this study the research is narrowly focused on technological innovations from projects on Kickstarter.com. Moreover, they are only

interested in how only two factors (1) consumer benefits and (2) rewards impact backers funding behavior. Both of the factors are associated with extrinsic motivation of backers. The authors reviewed 674 technology projects and collected data at two separate points in time. The first collection was while the campaign was still active, and the other was after the campaign closed. Next they utilize two independent raters to assess the consumer benefits stated in the project title as well as coding the number of rewards and reward levels.

The findings of the study suggest that the presence of consumer benefits stated in the project description can form a positive first impression and are positively related to an increased number of backers, which in turn increases the likelihood that a project achieves successful funding. Moreover, this relationship is moderated by the amount of rewards and reward levels. With regards to rewards, the results suggest that the relationship is curvilinear. This is seen by a reduced effect if there are far too few rewards as well as if there are way too many of them. Consequently, a moderate and balanced amount of rewards and reward levels provides the greatest impact towards backers funding.

The second article by Zhang & Chen (2019b) provides another look at the motivation of backers by examining their extrinsic motivation based on positive first impressions made by the benefits description of the projects as well as the balanced presence of rewards. However, the study is not without its limitations. First off, they only analyze technological innovations, this could be due to how they measured the first impressions, but it would have been interesting to compare them to another category as they did in their previous article. Additionally, they do not take into account the amount pledged per backer. Thus, it is difficult to be sure if the increased number of backers is the influence for the increased likelihood of achieving funding success or rather it could be that a few backers provide the majority of the funding goal. Finally, the authors

only measure first impressions from descriptions of the project title. They do not take into account the complete description or any videos or images used to describe the project. Those factors could serve as alternative explanations.

This concludes the previous research that focuses on the investigations into backers funding behavior, which represents the other side coin that is CF. Accordingly, a summary of the current literature that focuses on founders is summarized in table 2.6. The table includes the relevant findings and limitations of each study.

Table 2.6. Research Investigating Funders

Authors	Findings	Limitations
Burtch, Ghose & Wattal (2013)	Study shows the importance of information with respect to the behaviors of active and potential funders in a journalism-based CF platform. Findings include the more people donate, the lower the amount potential funders are willing to give, which suggest a potential crowding out effect. Altruism may be primary motivation for funders in this market. Longer funding campaigns are associated with higher performance.	Study has significant limitations due to the fact that the platform used is very narrow in focus and thus the findings likely will not apply in other platforms. For example, the finding of longer campaign duration is unique to this study alone as others have found the opposite. Finally, it does not appear to be sustainable as the CF platform used in the study is now defunct.
Koning, R., & Model, J. (2013). Experimental study of crowdfunding cascades: When nothing is better than something.	Experimental study identifies the role of social influence by way of funding amount (e.g. size) in the behavior of potential funders. Suggests that larger donation amounts signal a higher quality for a project. They also appear to be funded faster and are more likely to reach their goal. They demonstrate potential herding dynamics which are manipulated by the wealthiest donors as opposed to the 'wisest'.	Findings may be limited to only donation-based CF where funders are not seeking a return on their investment. In equity or reward-based CF a risk exists with the size of the funding amount provided. The effect may be the opposite when a return on investment is expected due to the fact that funders may want to limit their exposure on a signal investment.
Kuppuswamy & Bayus (2013)	Funding behavior of potential funders is affected by diffusion of responsibility of bystander effects; The more people back a project the less likely others will continue to provide funds due to the fact that they assume others will provide funding; This effect is diminished in the presence of deadlines such as the closing of the campaign; It was also found that an increase in communications by the founders was positively related to the likelihood the project receives new funder support.	Solely focuses on signals sent to potential funders by the presence of existing funders to a project; They do not include a measure of individual project quality; They ignore the number of rewards or funding levels available to potential funders

Lin, Boh, & Goh (2014)	Utilizing data from Kickstarter the authors suggest that backers fall into four different archetypes: active backers, trend followers, the altruistic, and the crowd. Each of the groups possesses their own characteristics and different motivations towards funding. Findings indicated that backers are more likely to support founders that back other projects; provide funding during the early stages of the campaign; and are drawn to projects that have a larger number of backers.	They do not explicitly measure the motivations of the backers. They only utilize one platform to develop the archetypes. Would they operationalize similarly on other platforms or other types of CF?
Allison, Davis, Short & Webb (2015)	Study utilizes a theoretical lens not previously used to investigate CF (cognitive evaluation theory). Suggest that prosocial investors are motivated by the act of lending and that extrinsic rewards might diminish intrinsic motivation. Findings indicate that factors thought to be generally positive in attracting investment appear to have the opposite effect for entrepreneurs in a prosocial funding environment such as CF. Founders are more likely to be funded when focusing their appeals to funders intrinsic motivations. Stressing the business aspects of a venture is likely to produce a negative effect resulting in a lower probability of funding.	This study is not generalizable, takes place in the microlending environment where the average total loan is just over $600 dollars. CF platform studied (Kiva.org) could be viewed as more of a combination of a donation based and lending based platform since the majority of funders do not anticipate a return on their investment.
Boudreau, Jeppesen, Reichstein, & Rullani (2015)	Authors take a deep dive into one CF campaign that lasts over six years. Argue that funding should be viewed as donations in reward-based CF. Findings include a positive relationship between funding and rewards available to funders along with the motivation to contribute to a common cause and a desire to payback and signal to the public by donating.	Limited to only one CF campaign that does not utilize any of the other platforms previously researched but rather its own website. The duration of the campaign is questionable and the funders in this case can be viewed more as consumers rather than investors.
Cholakova & Clarysse (2015)	Quasi-experiment utilizing equity-based CF platform SYMBID based in the Netherlands. Findings include, financial and utilitarian motivations outweigh non-financial motivations of funders desire to contribute capital. Additionally, it was shown that it is important to offer rewards that align with financial and utilitarian motivations, and trust is the only non-financial motivation that plays a role in the decision to pledge.	The CF platform used limits the findings of the study to be geared towards equity-based CF. The attempt to include reward based is hindered by the fact that individuals who participate in SYMBID are most likely seeking equity-based CF. Moreover, they select an 'innovative' project but fail to measure the impact how innovativeness plays a role in the funding decision.
Lin & Viswanathan (2015)	Dyadic analysis along with a quasi-experiment is performed utilizing data from lending-based CF platform Prosper.com. Findings indicate that backers have a preference to projects near them due to social or behavioral reasons rather than economic ones.	Limited to only lending based CF. Backers in this space have an inherent motivation to receive a return on their investment. Furthermore, it is not clear whether anyone can participate on this platform or do they have to be a qualified investor.
Andre, Bureau, Gautier, & Rubel (2017)	Reward based CF projects are more likely to succeed if they include backers participating in reciprocal giving as opposed to those that only rely on traditional economic exchanges. Technology projects perform poorly and acquire significantly lower levels of funding than other categories.	CF platform utilized (Ulule) is a hybrid one and allows for charity type of donations. Consequently, it is not possible to distinguish the effects between donation and reward-based CF.

Greenberg & Mollick (2017)	Women entrepreneurs are more successful at acquiring funding for technology-based projects in reward-based CF as a result of activist choice homophily. CF may be the exception to the rule in which women are more likely to acquire funding than their male counterparts.	Study utilizes an experiment where they survey students regarding one technology-based project. It does not take into account the effect the quality of the project may have on backer motivation.
Cox, Nguyen, & Kang (2018)	Backers mainly provide funding support to projects for the rewards and are extrinsically motivated rather than being mainly motivated by altruism. Both extrinsically motivated and intrinsically motivated backers are positively associated with the desire for image enhancement.	The CF platform selected for the study is unorganized and does not attempt to categorize or filter campaigns in any way. It is cross between donation and reward-based CF that does not take into account the characteristics of the campaign.
Scheaf, Davis, Webb, Coombs, Borns, & Holloway (2018)	Introduce the concept of signal flexibility where it is shown that the effectiveness of a signal varies between equity and reward based CF. Media coverage is more important than patents in reward based CF. Signals focused on the financial success of a project are preferred in equity based CF. High quality video pitches are positively related to a campaign's performance, whereas text quality signals have a negative effect.	Sample size and composition are questionable in the second study. They do not attempt to interview or survey actual backers for the second and third study.
Wei (2018)	The study provides insight into the motivations of backers with regards to the distribution of rewards across reward levels. Backers are most interested in material rewards and the product itself as opposed to symbolic rewards. However, symbolic rewards have a positive effect on higher reward tiers. Setting reward limits increases backer responsiveness.	Does not specify the CF platform nor whether it is an all or nothing or keep it all model. Study ignores founder and project characteristics. Main finding of backers preferring the product to all other rewards seems tautological.
Zheng, Xu, Zhang, & Wang (2018)	Backers are more likely to commit to projects in which they feel they have a sense of control and ownership. This relationship is influenced by founder communication and the social connection between backers. It is important to pay attention to the feelings and experiences of backers in order to acquire funding.	Cocreation and psychological ownership may not be as important in other forms of CF such as lending, or donation based. China values social capital more than the US and other countries. Findings may not be generalizable due to cultural differences.
Bagheri, Chitsazan & Ebrahimi (2019)	Study examines the funding motivations of donation-based backers in Iran. Utilizing self-determination theory, they categorize intrinsic and extrinsic motivation into both individual and social dimensions. Backers are mainly motivated by intrinsic-individual factors where they have a personal interest and connection to the project.	Only interview 13 backers from one donation-based CF platform. The absence of rewards may hinder extrinsic motivation of backers. Only concentrates on either filmmaking or art projects.
Dai & Zhang (2019)	Investigates prosocial motivations of backers. Backers are more likely to fund projects in the time frame just prior to the campaign reaching its goal. Backers provide greater amounts of funding during this time due to a sense of making a greater impact to the campaign. This relationship is magnified when there is one founder and when a campaign directly asks for help.	Study takes a look at a very narrow time period and ignores the launch, which is key to a campaign. Does not take into account product quality or innovativeness nor founder education or industry experience.

Kim & Viswanathan (2019)	Investors with experience within the category of a project who pledge money early on in the campaign positively influence non-experienced investors motivation to contribute funds. Investors past performance was also influential.	CF platform utilized (Appbackr) is unique in that it pays investors on a first come first serve basis. Thus, it is in the best interest of experienced investors to pledge money early in order to manipulate others to give so that they can ensure the success of their investment.
Li & Wang (2019)	Prosocial motivations lead to backer support of reward-based projects. Relationship is magnified in projects with a public-good focus. Backers that pledge prior to funding goal achievement are motivated by prosocial intentions, whereas those that fund after funding goal achievement are economically motivated.	Study does not control for the effect that may be caused by other marketing efforts outside of Facebook and Twitter, such as media coverage or YouTube. Ignore highly successful campaigns that met their goal within the first three days of launch.
Radoynovska & King (2019)	Backers who feel founders are authentic are more likely to provide funding towards their campaign. This is positively influenced by the likeability of the project, and not by the competence of the founder. Intrinsic/moral as well as uniqueness/idiosyncratic are the dimensions that help achieve authenticity.	Various characteristics from the 150 randomly selected campaigns were not included in the materials presented to the participants surveyed. There is no way to examine how these characteristics would affect the backer decisions.
Shahab, Ye, Riaz & Ntim (2019)	Backer's decision and motivation to give to a project is dependent on the feedback of others, social capital and quality of a project. Founder updates are a signal of quality to backers and increase the likelihood and amounts of funds pledged.	Study only focuses on Chinese CF platform Demohour which requires a mandatory feedback system that covers three categories. This is unique to this platform and thus the findings cannot be generalized. Other platforms do not anything similar to this.
Wang, Li, Kang, & Zheng (2019)	Study provides a formation path of self and social identity by integrating the factors from self-determination theory framework and examines them in donation-based CF in China. Both self-identity and social identity influence the donation intentions of backers.	Study is solely focused on donation-based CF where motivations of backers differ than those in other forms of CF in which they can receive a product, reward, or monetary return on their investment. Analysis does not include founder nor project characteristics.
Zhang & Chen (2019a)	Utilizes self-determination theory to examine how self-orientation and other orientation influence backer funding decisions. Findings indicate that self-orientation is positively related to backer's funding decision. Also finds that both self and other orientation are significant in women as opposed to men.	Only focuses on two categories. They do not take into account other types of non-financial motivation outside of other and self-orientation. The text analysis measure used could have been more robust.
Zhang & Chen (2019b)	Incorporates self-determination theory to explore the extrinsic motivation of backer funding behavior. Consumer benefits that lead to positive first impressions are more likely to attract a greater number of backers and achieve their funding goal. The amount of rewards and reward levels has a curvilinear relationship with extrinsic motivation.	Only focuses on technology projects within Kickstarter.com. They do not take into account the amount of funds pledged per backer. They ignore other characteristics that could list consumer benefits such as complete project description, videos, or images to describe the project.

2.4.6 Funder Theme Prosocial vs. Economic

A review of the funder theme of the CF research indicates that the majority of the studies argued that CF has to do more with prosocial behavior of backers, however, there are still quite a few that see it as an economic phenomenon. The funder studies focused on prosocial behavior include those that investigate effects of the crowd such as giving early, following the crowd, supporting founders that give to other projects, and how the more people give, the less money an individual is willing to contribute, however, these effects are diminished as the campaign deadline is close (Burtch, et al., 2013; Kuppuswamy, & Bayus 2013; Lin, et al.,); and the greater amount of a monetary donation provided by a backer, the more influence they have on the herd (Koning, & Model, 2013). Others argue that they are more likely to participate in reciprocal giving as opposed to traditional economic exchanges (Andre et al., 2017) or that backers self and social identity influence their motivation to give (Shahab, et al., 2019). Moreover, backers possess certain preferences such as funding projects that have a common cause or are geographically near them; prefer women founders in technology projects as well as authentic entrepreneurs; and give moments before a campaign reaches its goal in order to feel like they are making more of an impact (Boudreau, et al., 2015; Lin, & Viswanathan, 2015; Greenberg, & Mollick 2017; Dai, & Zhang 2019; Radoynovska, & King 2019). Furthermore, a group of studies utilize the theoretical lens of self-determination theory to suggest that backers are influenced by projects that are focused on helping others; appeal to their intrinsic-individual factors where they have a personal connection to the project; react to the feedback of other backers; and respond to their self and other orientation to support female founders (Allison, et al., 2015; Bagheri, et al., 2019; Wang, et al., 2019; Zhang, & Chen (2019a). Finally, a study by Li, & Wang (2019) argues that backers can be both influenced by prosocial behavior and economic decision. Consequently,

backers prefer projects with a public good focus and are motivated by prosocial intentions when they contribute to a project prior to it achieving its goal; however, backers that give once a project has reached its funding goal are economically motivated.

The remaining studies look at the backer perspective from an economic phenomenon focus. Certain investigations find that backers financial and utilitarian motivations outweigh non-financial motivations; backers focus on signals that focus on the financial success of a project; and experienced investors give early and influence non-experienced investors (Cholakova, & Clarysse 2015; Scheaf, et al., 2018; Kim, & Viswanathan, 2019). Furthermore, backers are extrinsically motivated by material rewards and the product itself as opposed to symbolic rewards or altruism (Cox, et al., 2018; Wei, 2018). Other studies highlight the preferences of backers towards projects in which they feel a sense of control and ownership; and are motivated by first impressions of a project that highlight the consumer benefits of the product. The economic and prosocial backer focused studies are summarized in table 2.7.

Table 2.7. Funder Theme; Economic vs. Prosocial

Economic	+ financial return + signals focused on financial success + experienced investors give early + experienced investors influence non-experienced investors	Cholakova, & Clarysse 2015; Scheaf, et al., 2018; Kim, & Viswanathan, 2019
	+ extrinsic + image enhancement + material rewards + product - symbolic rewards	Cox et al., 2018; Wei, 2018
	+ sense of control + ownership + positive first impressions + consumer benefits	Zheng, et al., (2018)

Prosocial	- amount per backer + altruism primary motivation + number of backers leads to - likelihood of others to provide funds + deadline of campaign influences contribution + updates influence funding + large donations signal high quality + projects with high donations are funded faster + wealthiest backers have most influence	Burtch, et al., 2013; Kuppuswamy, & Bayus, 2013; Koning, & Model, 2013; Lin, et al., 2014
	+ reciprocal giving + self-identity + social identity	André, et al., 2017; Shahab, et al., 2019
	+ contribute to common cause + proximity to borrower + women founders + technology-based projects + Funds to campaign reaching its goal + Sense of greater impact + authentic entrepreneurs	Boudreau, et al., 2015; Lin, M., & Viswanathan 2015; Greenberg, J., & Mollick, E. 2017; Dai, H., & Zhang, D. J. 2019; Radoynovska, & King, 2019
	- profit language - risk taking language + human interest language + overall intrinsic cues + intrinsic-individual + self-identity + social identity + self and other orientation	Allison, et al., 2015; Bagheri, et al., 2019; Wang et al., 2019; Zhang, & Chen, 2019a
	+ prosocial motivations + projects with a public good focus Backer support prior to success = prosocial Backer support after success = economically motivated	Li, G., & Wang, J. 2019

2.5 Summary of Three Themes

The third and final stream of research sheds light onto the second side of the CF coin by examining CF through a backer perspective what contributes to their contribution behavior. The literature review is now complete for both the founder and backer perspectives. Many interesting findings were identified by the various authors investigating the dynamics in CF. Despite the abundance of research within this still nascent field of research, there are clear gaps that solicit further investigation.

Most glaringly is the need for more further investigation into the information asymmetry dynamics that exist between founders and backers in CF. Approximately, thirteen percent of the studies in the literature review attempted to address this problem. Of those, seven look at how signals affect funding received by founders (Ahlers, et al., 2015; Moss, et al., 2015; Kunz, et al., 2017; Courtney, et al., 2017; Block, et al., 2018; Thies, et al., 2019). Among those, Ahlers et al., (2015) attempts to measure the impact of a founder's human capital within equity-based CF, while it was found that human capital does positively relate to successful funding, the study is aligned with traditional forms of raising capital and does not attempt to look at whether it makes an impact in reward-based CF. Another investigates the effects of human capital by measuring whether or not a founder has previously founded or sold a venture prior to launching their campaign (Roma, et al., 2017). Moreover, the study was focused on trying to understand the how the performance of a CF campaign can lead to investments from professional investors. Finally, the study by Chan, et al., (2018) bundles a bunch of characteristics together as entrepreneur effects, which includes human capital, however, their analysis does not utilize any variables and thus it impossible to determine what the impact of human capital is on successful CF. Consequently, I plan to investigate the effect of human capital within my studies.

Another conspicuous lack of examination is the level of innovativeness of a proposed project or how radical it may be. Of the studies reviewed above only four attempted to incorporate some type of innovativeness measure. The first, Roma, et al., (2017) includes the presence of whether a project possessed a patent at the time of their campaign, however, the mere presence of a patent may signify the product being innovative, it does not attempt to determine the effect of how it may contribute based on how radical or disruptive it may be. Similar to the entrepreneur effect utilized by Chan, et al., (2018) they include innovativeness as a characteristic of project effect, but again does not include any actual variable or measurement to determine its effects. Scheaf, et al., (2018) utilize the presence of a patent as a measure of a quality signal but found that it did not have a significant effect in backer funding behavior within reward-based CF, but it was significant within equity-based CF. Finally, Radoynovska, & King (2019) do not have a specific measure of innovativeness, but they show that idiosyncratic authenticity is related to the uniqueness of a project, however, uniqueness of a project does not constitute innovativeness.

The first two gaps identified in the literature above could be categorized as those related to the product (innovativeness and radicalness) and the other to the mind (founder education and industry experience). If you have the product and the mind, what is missing? I would argue that the heart or showing a founder cares is still lacking. What factors or actions could be utilized to signal that a founder care? These could include them backing other CF projects and spending time on the campaign by providing updates to prospective backers. The two measures have been included among various studies but have not been looked at from a perspective of caring or heart by a founder. The following tables (2.8 and 2.9) highlight the gaps in the literature when it comes

to the product, mind, and heart of CF. Furthermore, they note which, studies have attempted to try and measure them previously.

Next, I will move onto the first of my two studies. The first study will investigate the product, mind, and heart signals that a founder can utilize in order to influence the funding behavior of backers.

Table 2.8: Founder Literature: Product, Mind, Heart

Innovativeness or Radicalness	Roma et al., (2017) - patents influence on VC funding Chan et al., (2018) - included in project effects
Human capital (founder) -Education -Industry experience	Human capital Roma et al., (2017) - Previous founding of venture; previous sale of venture; Chan et al., (2018) - included in entrepreneur effects
Caring characteristics -Founder backing other projects -Updates by founder	Founder Backing: Colombo et al., (2013) - "Kickitforward" measured as a form of internal social capital Kunz et al., (2017) - High cost signal of quality Chan et al, (2018) - included in entrepreneur effects Updates: Mollick (2014) - quality Wu et al., (2015) - Visibility; low cost; frequency Kunz et al., (2017) - quality; high cost; "during phase" Block et al., (2019) - EQUITY; Type of: bus. dev.; campaign dev.; cooperation agreements; new funding

Table 2.9: Funder Literature: Product, Mind, Heart

Innovativeness or Radicalness	Scheaf et al., (2018) patents Radoynovska & King (2019) - idiosyncratic authenticity (uniqueness)
Human capital (founder) - Education - Industry experience	none
Caring characteristics - Founder backing other projects - Updates by founder	Founder Backing: Lin et al., (2014) - influences propensity to give Updates: Shahab et al., (2018) - main indicator of project quality Zheng et al., (2018) influences backers giving; cocreation; psychological ownership

CHAPTER III

PRODUCT, MIND AND HEART OF CROWDFUNDING

3.1 Introduction

As previously mentioned, information asymmetry is likely the most significant challenge facing nascent entrepreneurs that are engaging in CF (Shane, & Cable, 2002). Accordingly, founders can utilize signals in order to help mitigate this dynamic. Based on signaling theory, I propose that there are three categories of signals, the product (innovativeness), the mind (human capital of the founder) and the heart (caring characteristics). This study examines how the three categories of signals may influence the likelihood of obtaining financing. The next sections of the study will include a review of CF research, theoretical development, methodology, variables, results, discussion, limitation, and conclusion.

3.2. Crowdfunding Research

Previous research in CF has mainly investigated different motivations behind CF, the influence of information on CF, and the factors that increase CF success. In terms of studies investigating the reasons for engaging in CF Agrawal et al., (2011) cited the shortage of capital and the evolution of Web 2.0 technologies, which has made it easier to develop the platforms that enable project founders and funders interactions. Belleflamme et al., (2011) cited the financing of the project, the public attention that arises around the project and the feedback about

the product or service being offered. Furthermore, Gerber et al., (2012) identified the motivations of individuals who post (founders) and fund (backers) projects. The founders' motivations included fundraising, establishing relationships, receiving legitimacy, replicating successful experiences, and increasing awareness about their work through social media. Giudici et al., (2012) found that CF has mainly a social as well as emotional value and that individuals decide to fund projects depends on the proposed amount of money, the emotional content of the project, and the returns created.

With regards to the role of information, Burtch et al., (2013) identified that information on prior contribution behavior can influence the behavior of backers. Additionally, Kuppuswamy & Bayus (2013) found that the more people back a project the less likely others will continue to back it due to the fact that they assume others will put money instead. However, the same authors' state that herding behavior may not be present for reward-based CF. Therefore, Ley and Weaven (2011) claimed that funders need more comprehensive information about the project for conducting adequate due diligence in the decision-making process. Subsequently, Schwienbacher & Larralde (2010) discovered that CF can provide valuable signals on the market potential of a product founders wish to launch, which they characterize as active CF in that founders offer funders the ability to become active in the initiative along with offering rewards.

This study focuses on the stream of research that identifies the factors leading to successful funding. Based on signaling theory, I classify signals into three categories the signals of product quality, the signals of mind (human capital of the founders) and the signals of heart (caring characteristics). The study examines how the three types of signals may influence the likelihood of obtaining financing in reward-based CF.

3.3 Theoretical and Hypothesis Development

3.3.1 Types of Signals

Unlike traditional equity investors whose primary concern is long term financial returns, backers in CF often hold three unique roles: investor, consumer and donor (Mollick, 2014). First, funders may function like investors. In such a role, their key goal is to make sure the venturing will give the investors positive abnormal returns (Janney, & Folta, 2003). To such backers, they look for signals indicating high quality opportunities and outstanding management team (Zimmerman, 2008). Therefore, founders with higher education and substantial industry experience may indicate high quality of entrepreneurial opportunity to funders and the likelihood of obtaining financial resources can be enhanced (Spence, 2002). Second, the funders often receive the to-be-produced product/service, either a book, or a CD or a cooler in return for their donation. This way, the funders act more like consumers of a newly developed product/service (Ordanini et al., 2011). They may be the innovators and early adopters based on the production diffusion curve who are willing to take risks to try unproven product. Hence, the radicalness of the product or service may be signals for high quality. Entrepreneurs who want to secure financing should send signals to backers by emphasizing the quality of their products. Third, investors in CF may also serve the function of 'social participation' (Ordanini et al., 2011, p.455). Such backers behave like philanthropic donors that simply want to provide financial support to the entrepreneurs so that they can realize their dreams. To obtain the financial support entrepreneurs should focus on the social deed of their projects by showing they care.

3.3.2 Signals of Product Quality

In the context of this study the information asymmetry dynamic is magnified with regards to technology entrepreneurs and reward-based CF. In terms of the latter the information asymmetry challenge has been clearly identified in the literature review section (Schwienbacher and Larralde, 2010). With regards to technology entrepreneurs the information asymmetry dynamic is also magnified because of the project innovativeness. Previous studies have shown that radical innovations are characterized with a higher degree of uncertainty and information asymmetry (Goktan & Miles, 2011; Hermann et al., 2007). While there are various categorizations of innovation in previous research, this study will distinguish in terms of incremental and radical innovation (Henderson & Clark, 1990; Goktan & Miles, 2011).

Incremental innovation consists of implementing minimal changes to an existing product by exploiting the potential of the established design. In contrast, radical innovation consists of developing knowledge based on a different set of engineering and scientific principles that open up whole new markets and potential applications (Henderson & Clark, 1990; Koberg et a., 2003; Un, 2010). Furthermore, radical innovations have been characterized as being embedded in higher level of uncertainty, which increases the amount of information needed to implement them (e.g., Goktan & Miles, 2011). As such, CF projects based on radical innovations will require a greater amount of signals in order to manage the information asymmetry dynamic as opposed to projects based on incremental innovation.

Hypothesis 1a: Ceteris paribus, the more radical the project the less likely the project will achieve its funding target.

However, according to the product diffusion model, when new products are introduced, some consumers, named innovators, often take the risk to be the first group to try out the unproven products (Midgley, 1977; Mahajan & Muller, 1988). Such consumers are very important to the founders in that they are risk takers and willing to give the new products a chance (Mahajan & Muller, 1988), and better they help promote the products through persistent communication (Rogers, 1995). Innovators can also help businesses by providing early positive cash flow to cover new product development expenses and marketing cost (Goldsmith & Flynn, 1993). As stated above, backers serve the role as innovator consumers who often focus on the uniqueness of a product rather than potential risks. To such a group, radicalness becomes a positive signal and backers are such a group (e.g., Lambert & Schwienbacher, 2010). Thus, I propose a competing hypothesis:

Hypothesis 1b: Ceteris paribus, the more innovative the project the more likely the project will achieve its funding target.

3.3.3 Signals of Mind (Human Capital)

In order to manage the information asymmetry dynamic, high technology CF founders must send out signals to potential funders in order to achieve successful funding targets when using CF. For founders, general human capital characteristics of education and previous industry experience (Becker, 1975) will signal to funders that the project is legitimate. For example, Spence's (1973) study showed how achievement of higher education was a costly signal to prospective employers that could help differentiate between those job seekers with a college degree and those without. Furthermore, this demonstrated that those applicants who had attained a degree were able to withstand the rigor associated with higher education, thus the applicants

who attained a degree were seen as having a higher quality than those who had not attained a degree. Additionally, past industry experience may be a signal of knowledge of important information regarding the project's industry, customers, and suppliers (Certo, 2003). Consequently, the founder human capital characteristics will signal legitimacy and higher quality to backers thus reducing the information asymmetry dynamic. Backers in an investors' role are like traditional equity investors and they tend to make rational decisions (Denis, 2004). They therefore may view human capital as positive signals and we hence propose that there should be positively related to the relationship between founder human capital characteristics and successful funding achievement. Accordingly,

Hypothesis 2: Ceteris paribus, founder employee skill set is positively related to successful funding achievement.

Hypothesis 2a: Founders that provide information on their educational background will be more likely to achieve their funding target.

Hypothesis 2b: Founders that provide information on their previous industry expertise will be more likely to achieve their funding target.

3.3.4 Signals of Heart (Caring Characteristics)

Compared with traditional funding, CF decision depends on founders' passion and social motivations because backers also play a role of philanthropic donors. CF is designed as a platform for those who are underrepresented in traditional financing. Social motives are crucial in the backers' investment decision. Research has shown that disadvantaged groups tend to be more successful. For instance, Lambert & Schwienbacher (2010) found that non-profit projects are more likely to achieve successful financing. Greenberg & Mollick (2014) found that women

outperform men in CF because women backers are more likely to lend their support to female led projects. Mollick (2014) found that personal networks increase the likelihood of CF success.

Baron & Markman (2003) argued that financing decision depends on the founders' social skills. I believe that previous funding of CF projects by the founder signals a willingness to support other creators and causes, which aligns with the social motivations of funders (Gerber et al., 2012; Burtch, et al., 2013; Boudreau, et al., 2015). Additionally, project updates by the founder on the status of the project provide information to potential backers and are associated with signal frequency which may make them more effective (Wu, et al., 2015). Therefore, the project. Therefore, the project characteristics will provide greater signal observability, strength and frequency as well as indicate a higher quality and reputation to backers thus reducing the information asymmetry dynamic. In addition, both previous funding of CF and project updates may signal to backers that the founders care about them. In the CF setting, those signals mean the founders use their social skill to engage interaction with the backers to create social presence (Walther, 2011). As such, these signals should be positively related to the relationship between project characteristics and successful funding achievement. Accordingly,

Hypothesis 3: Ceteris paribus, caring characteristics are positively related to successful funding achievement.

Hypothesis 3a: Previous funding by founder of other crowdfunding projects will be positively related to successful funding.

Hypothesis 3b: Those projects which provide updates on the status of the project will be positively related to successful funding.

3.3.5 The Interaction Effect of Signals

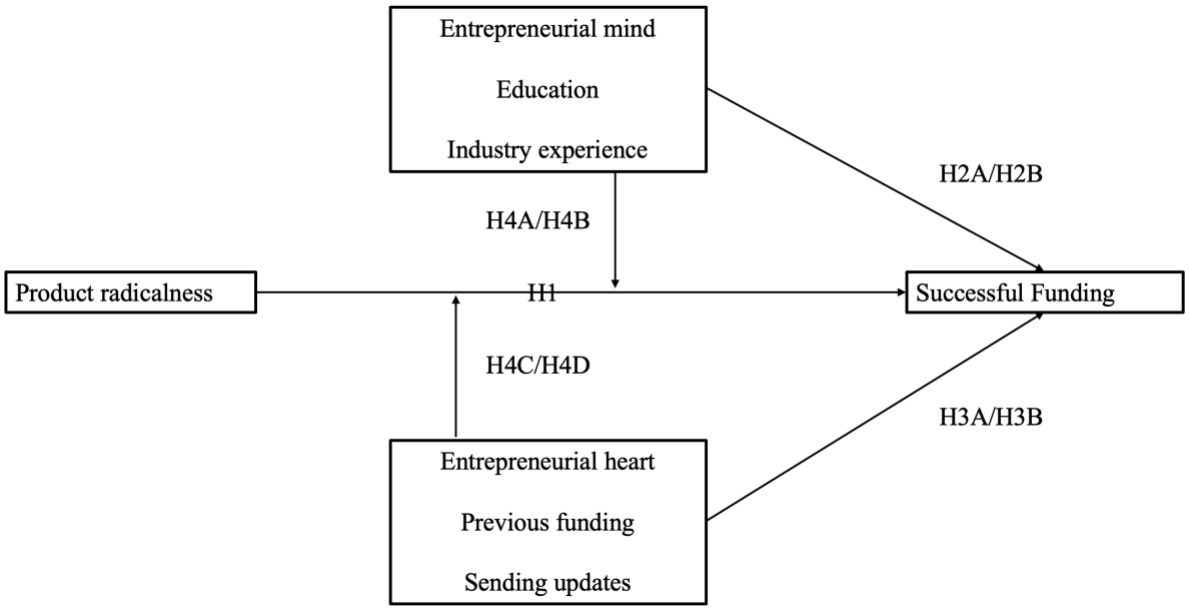
Hypothesis 1 predicts product innovativeness may either improve or decrease the chance for founders to secure financing. The possible enhancement or alleviation of opportunities for funding depends on the founders because the success of a venture is the function of the enterprising individuals and opportunity (Shane & Venkataraman, 2000). I argue that a radical new product is more likely to be funded if their founders also possess the needed human capital to exploit the opportunities. In the investor's eyes, a highly educated person with substantial industry experience may have better control over radical innovation because such individuals command strong legitimacy (Janney & Folta, 2003). The combination of a good product and a strong-willed entrepreneur sends a much stronger signal to the investors. I also make the prediction that founders who show their caring through frequent updates and previous funding of other projects send a strong signal that may help reduce information asymmetry, thus increasing the probability of the projects getting the needed financing. Accordingly,

Hypothesis 4: Ceteris paribus, individual skill and abilities and positive emotional state moderate the relationship between product radicalness and funding success.

In summary, more radical products are more likely to successfully achieve their funding goal due to the greater appeal of the product to innovators and early adopters. Such products may also signal more information asymmetry hence reducing the chance for successful funding. In addition, founder human capital, such as educational background and prior industry experience sends signals of the mind to investors that the founders have the human capital required to complete the project, hence increasing the possibility for investors to invest in the project. Further, previous funding of CF projects by founder and frequent updates represent signals to

backers that help reduce the information asymmetry dynamic and are positively related to successful funding achievement. Lastly, human capital and caring characteristics moderate the relationship between product radicalness and successful funding. These relationships are illustrated in figure 3.1.

Figure 3.1. Theoretical Model



3.4 Methodology

3.4.1 Data Collection

In order to evaluate the hypotheses developed in this study, I follow previous studies such as Kuppuswamy & Bayus (2013) and Mollick (2014) and utilize data from the Kickstarter.com CF platform in order to collect the sample. The dataset used in this study was collected from all the Kickstarter projects listed in the technology domain during the time frame between May 2,

2009 through September 5, 2012. A content analysis was performed by analyzing each individual project web link to identify the variables examined in this study.

There was a total of 614 projects in the technology domain on the Kickstarter website during the time frame selected. In order to make sure that our sample is consistent with the setting of hypotheses testing, I followed two criteria in the sampling process, based on the results of the analysis. First, the analysis revealed some projects were outside of the allowable countries of origin permitted by Kickstarter.com. Second, the analysis also showed that some projects were improperly classified as a tangible technology project. These projects were removed from the total and I proceeded to randomly select every fifth project to reach the final sample size consisting of 150 technology projects to be included in the analysis.

3.5 Variables

3.5.1 Dependent Variable

The dependent variable for this study is *project funding goal achievement*. Kickstarter uses an 'all or nothing' approach, which means that the money is raised successfully or not depending on if the money raised reaches the target set by the founder. While some CF platforms may not follow this approach, it is the most popular approach used in the CF industry. The variable was categorized '0' if the funding goal is not met and '1' if the goal is met or surpassed.

3.5.2 Independent Variables

Technology radicalness measures how a product is deviant from previous products (Henderson & Clark, 1990). A similar product shows incremental improvement while unfamiliar

products are often radical and innovative. Since Kickstarter does not categorize the radicalness of a product/service; we performed a content analysis of each individual technology project in order to identify Keywords: used to describe the project by the founder (Examples include 3D printer; mobile application; Arduino technology; Robot; CNC). I then performed an internet search using Amazon.com to identify the number of related products using the keywords used in the descriptions. For example, a Kickstarter project that describes its product as a 'Wi-Fi music system' is searched in Amazon.com using this description; which results in 8496 products available on the market. This was performed for each individual project in our sample. This results in a varying degree of radicalness with those projects with many similar products available being considered less radical to projects without similar products being considered more radical. I did a similar calculation of radicalness by using Walmart.com and both measures are highly correlated ($r = 0.61$; $p < 0.000$). Using Walmart radicalness calculation instead of Amazon yielded substantially similar results.

I also included the founder human capital characteristics previously described in earlier sections of this study. Founder human capital characteristics include *educational background and industry experience*. A content analysis of the technology project web link was performed in order to identify each of the variables. *Educational background* was categorized by a '0' if no educational background was provided in the project profile and '1' if a description of the founder's educational background was provided in the project profile. Although education level could have a significant effect on entrepreneur success (Unger et al., 2011), I expect that the education-related signal would influence the success of CF in an online platform more generally than the effect of different levels of education. *Industry experience* was categorized by a '0' if no

industry experience was provided in the project profile and '1' if a description of the founder's industry experience was provided in the project profile.

Caring characteristics include *previous funding and updates*. A content analysis of the technology project web link was performed in order to identify each of the variables. *Previous funding* by the founder was measured categorically by a '0' if the founder had not provided funding or 'backed' other CF projects and '1' if the founder had previously funded or 'backed' other CF projects. *Project updates* were measured continuously by the number of updates provided by the founder in the updates section of the project profile.

3.5.3 Control Variables

I follow previous studies (Kuppuswamy & Bayus, 2013; Mollick 2014) and control for *duration, goal, rewards,* and *external website link.* The *duration* of a project on Kickstarter.com can last from one to 60 days and was measured by the number of days the project was eligible for funding. The *goal* is the amount of funds the project founder is attempting to raise and was measured by the dollar amount the project founder was seeking. The *rewards* are the different types of compensation that are received by the funders. They vary in terms of the funding levels that are available to funders and were measure by the number of different levels available for funding. The *external website link* was whether or not the project profile included a link to an external website that was dedicated to the project outside of the Kickstarter.com site. It was important to control for these variables in order to determine the relationships outlined in the hypotheses.

3.6 Results

Logistic regression is used to analyze the data. As noted by King (2008) "logistic regression allows categorically and continuously scaled variables to predict any categorically scaled criterion" (p.358). Consequently, the data was analyzed using binomial logistic regression and the statistical analyses were performed using STATA. The descriptive statistics and correlations are displayed in table 3.1. Of the total sample used in the analysis (n = 150) there were 102 cases of successful funding achievement and 48 cases that did not reach their funding target resulting in a 68% success rate.

Table 3.1. Descriptive Statistics and Correlation

	Variable	*Mean*	*SD*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
1	Project funding goal achievement	0.68	0.468	1											
2	Backers	433.21	1081.368	0.247***	1										
3	Duration	35.71	11.873	0.162*	0.086	1									
4	Goal ($)	24102.91	48724.654	–0.161*	0.198*	0.108	1								
5	Pledged ($)	31406.76	53088.759	0.346**	0.710**	0.202*	0.249**	1							
6	Rewards	8.73	3.460	0.223**	0.216**	0.107	0.149	0.373**	1						
7	External website link	0.92	0.272	0.114	0.072	0.016	0.072	0.117	0.041	1					
8	Technology radicalness	4.23	6.130	–0.056	–0.006	–0.129	–0.061	–0.112	–0.066	0.075	1				
9	Educational background	0.44	0.498	0.147	0.010	0.118	0.071	0.167*	0.191*	–0.085	–0.075	1			
10	Industry experience	0.71	0.454	–0.150	0.067	0.012	0.182*	0.137	0.099	0.193*	0.004	0.057	1		
11	Previous funding	0.53	0.501	0.352**	0.027	0.208*	0.040	0.061	0.126	–0.132	0.033	0.114	–0.040	1	
12	Project updates	13.67	12.560	0.527**	0.251**	0.227**	–0.016	0.445**	0.356**	0.079	–0.070	0.266**	0.093	0.287**	1

N = 50.

*Correlation is significant at the 0.05 level (two-tailed test).

** Correlation is significant at the 0.01 level (two-tailed test).

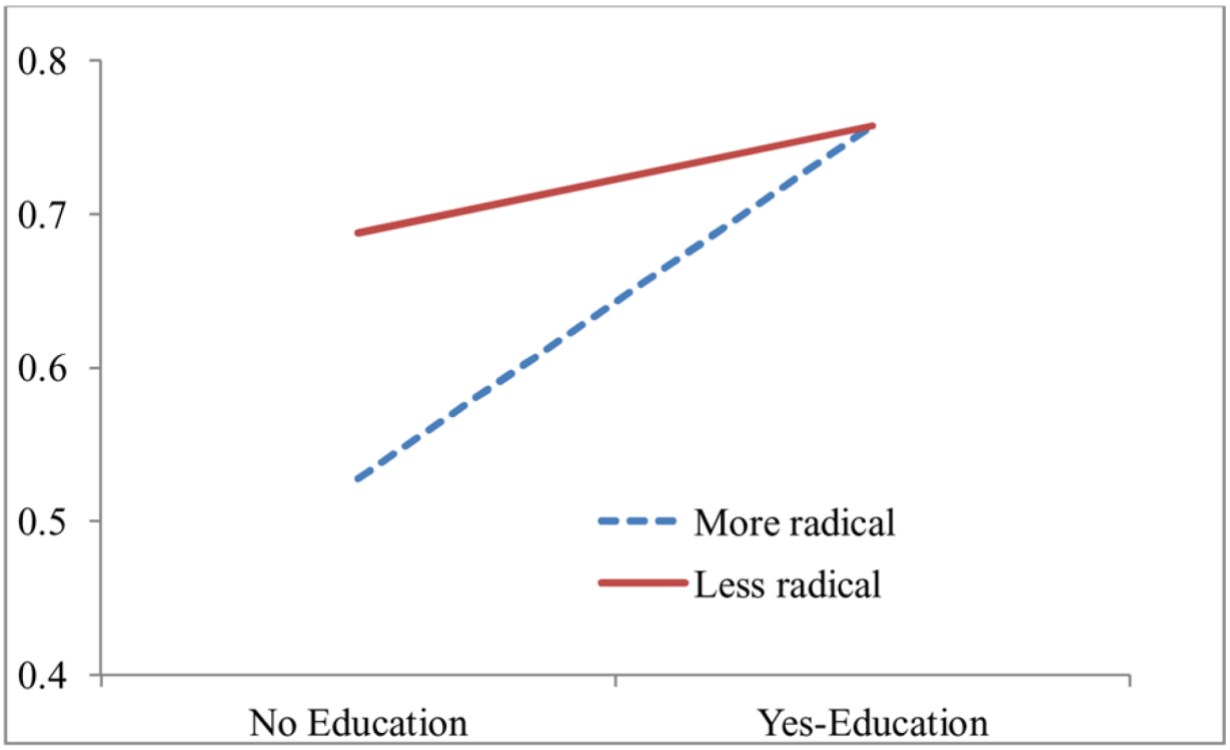
Table 3.2 shows the logistic regression results. Model 1 contains the control variables. Model 2 includes both the control and independent variables. Model 3 consists of all the variables along with the interaction effects. I predicted that project radicalness can be either positively or negatively positively related to crowdfunding success. However, I did not find the

relationship to be significant. Hypothesis 1 did not receive confirmation. With regards to the founder human capital characteristics, education was not significant. In contrast, industry experience was significant ($p < 0.001$); however, the relationship was negative, which contradicts our prediction. Hence, Hypothesis 2 was not confirmed. In terms of the caring characteristics both previous funding ($p < 0.02$) and updates ($p < 0.02$) were significant. Therefore, Hypothesis 3 received strong support. Finally, only education moderates the relationship between product radicalness and funding success. Thus, Hypothesis 4 was partially supported. Figure 3.2 visually presents the result for Hypothesis 4a.

Table 3.2. Logistic Regression on Crowdfunding Success

	Model 1		*Model 2*		*Model 3*		*Model 4*		*Model 5*		*Model 6*	
	B	*Sig.*	*B*	*Sig.*	*B*	*Sig.*	*B*	*Sig.*	*B*	*Sig.*	*B*	*Sig.*
Backers	0.005	0.030**	0.003	0.298	0.004	0.294	0.003	0.290	0.003	0.287	0.003	0.294
Duration	0.037	0.024**	0.010	0.678	0.015	0.501	0.009	0.710	0.012	0.635	0.012	0.611
Goal	2.129	0.236	1.326	0.252	1.262	0.253	1.315	0.263	1.320	0.255	1.326	0.246
Rewards	0.126	0.188	–0.041	0.668	–0.033	0.744	–0.040	0.672	–0.038	0.687	–0.040	0.679
External website link	1.830	0.181	1.773	0.055*	1.865	0.037**	1.740	0.069*	1.773	0.067*	1.907	0.061*
Technology radicalness			0.109	0.677	0.520	0.115	0.171	0.561	–0.001	0.997	–0.025	0.905
Educational background			0.153	0.727	1.000	0.068*	0.147	0.739	0.196	0.659	0.224	0.621
Industry experience			–1.890	0.001***	–2.073	0.001***	–1.831	0.008***	–1.875	0.001***	–1.872	0.001***
Previous funding			1.328	0.015**	1.159	0.042**	1.334	0.014**	1.128	0.092*	1.302	0.014**
Project updates			0.123	0.015**	0.110	0.033**	0.123	0.014**	0.122	0.016**	0.103	0.128
(Technology radicalness) × (Educational background)					–0.236	0.015**						
(Technology radicalness) × (Industry experience)							–0.018	0.784				
(Technology radicalness) × (Previous funding)									0.045	0.419		
(Technology radicalness) × (Project updates)											0.004	0.472
Log Likelihood	–44.65		–37.42		–35.96		–37.40		–37.29		–37.24	
Wald Chi-squared	9.53*		38.90***		50.09***		43.43***		43.81***		40.95***	

Figure 3.2. Interaction of Radicalness of Product and Education



Post hoc analyses were conducted. I first undertook a chi-square test to verify the finding for the main effect. Table 3.3 shows that industry experience decreases the probability of getting the needed funding from 79% to 63%. The results also support Hypothesis 3 that previous funding of another project enhances the probability of successful financing from 51% to 84%. And frequent updates boost the likelihood of being financed from 49% to 95% where I coded few updates 0 as less than the mean and 1 as above the mean.

Table 3.3. Chi-square Test

	Main effect	*Less-radical product*	*More-radical product*
Educational background	3.26	0.47	3.94*
Industry experience	3.40*	3.72*	0.47
Previous funding	18.53***	14.64***	4.54*
Project updates	35.83***	14.80***	20.91***

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

3.7 Discussion

First, I argued product radicalness signals novelty and breakthrough innovation and therefore it would have a positive impact on CF success. However, the results show insignificance. According to the product diffusion model, product innovators and early adopters tend to take more risks by trying untested and radical products (Mahajan & Muller, 1998). Indeed, research has found backers "are innovators in the way they use technology to interact" and "decide to invest because they want to be the first" (Ordanini et al., 2011, p.455). However, information asymmetry indicates that backers may also be wary of the project founders' moral hazards (Denis, 2004; Mollick, 2014). They may ask questions if the entrepreneurs are able to deliver a high-quality product, and if they will fulfil their promises such as rewards to the funders. Due to the uncertainty aspect of communication (see table 1) and given that entrepreneurship involves not only product but also the enterprising person (Shane & Venkataraman, 2000), backers may be also concerned with the entrepreneurial intent (Burtch et al., 2013). I contend the product radicalness may be a double-edge sword where it attracts innovators to fund the project by signaling quality, but at the same time, it also increases the

backers' concern of the entrepreneurs' moral hazards therefore hurting the chance of getting funded.

Second, it was expected that human capital should be positively influencing CF achievement. However, the analyses show the opposite for specific human capital. Specifically, if a founder has industry experience, his/her probability of getting funding is only 0.63 while that for those without industry background stands at 0.79. That is industry experience hurts a founder's chance to obtain financing through the CF platform.

The surprising findings are attributed to the following possibilities. First, information asymmetry may not exist in the CF market because most of the time the funding amount can be minimal (Ordanini et al., 2011). Thus, backers may not feel the huge damage even though moral hazards and adverse selection occur (Denis, 2004). Second, Ordanini et al., (2011) found that 'social participation' is more important to backers. They may think that experienced founders with high human capital do not need their participation and hence their motivation to participate weakens. Third, CF serves as a platform for a relative disadvantaged group (Greenberg & Mollick, 2014). Backers have the tendency to help those who really need their support. Founders with a rich industry experience signal that they can find financing somewhere else such as through personal savings, banks and even venture capitalists. Backers thus hesitate to lend their support to this group.

Third, I predicted caring characteristics such as sending updates often and having previously funded other projects positively influence financing achievement. The hypotheses were supported. As discussed earlier, unlike traditional financing, CF is a platform for all, but it often lends more support to disadvantaged individuals (Greenberg and Mollick, 2014). For example, women benefit more than men in CF, and non-profit organizations find more success in

CF than for profit ones because such founders may need the financing more and they may be more trusted (Lambert & Schwienbacher, 2010). Previous funding experience and sending updates signal to backers that the founders do care about them and therefore are likeable and more trustworthy. Such signals reduce backers' concerns over moral hazards. Thus, the chance of obtaining funding increases when founders send signals that they care.

Fourth, the interaction analyses yield some interesting results. Specifically, of the four proposed moderators, only education strengthens the relationship between radicalness of a product and funding success. This suggests a few possible conclusions. First, caring characteristics are positive signals not contingent upon context. The heart in CF benefits the project founders no matter how radical one's product is. For example, the likelihood to achieve successful financing for entrepreneurs who deliver more updates increases by 40% or more for both radical and non-radical products. But the same thing cannot be said for human capital (mind) factors. It can be seen, for instance, that education enhances the probability of successful financing about 7% for non-radical products, but the change for radical products becomes 23%. Second, backers judge entrepreneurial mind from different angles. While specific human capital, such as industry experience, may hurt entrepreneurial financing strategies, general human capital like education may have an opposite effect. Indeed, it has been found that industry experience and education can exert different effects on entrepreneurs (Marvel & Lumpkin, 2007). I argue that education is different from industry experience in that education may carry social characteristics with it and it is especially important to disadvantaged groups. Lofstrom & Bates (2009) found that Latina entrepreneurs with higher education command higher income than Caucasian entrepreneurs and Latina salary workers. Education for disadvantaged founders may

signal not only opportunity quality but also their motivation and ability to achieve what they want, the combination of which enhances the potential of success for them.

3.8 Limitations

While, this study makes a few contributions, it is not without limitations. First, only one industry was examined (technology). While different types of projects may vary in their probability of getting financing (Lambert and Schwienbacher, 2010), a comparison of two industries or more may provide more insights about the CF dynamics. However, examining one industry, in this study, high technology projects, can help screen out confounding effects (Wu, et al., 2005).

Second, I did not control some important variables, for example, demographics. Because CF may be favorable to disadvantaged groups (Greenberg and Mollick, 2014), gender may be an important factor to consider. Future research should control more such variables, such as minority or not, female or male and young vs. old. Third, I failed to find the interactive effect of product radicalness and the signals of heart and mind. That may be attributed to how I measured those variables. For example, I dichotomized industry experience and education. More fine-grained measures may be employed in future research to include the level of education and educational background such as engineering degree or business field.

Fourth, I assumed sending updates and previous funding experience as caring characteristics. To comprehend the motivations behind those activities, future research should conduct surveys to project founders. Fifth, the casual effect of the variables was not investigated. Therefore, future research could examine more details about the causality relationship among the

important variables. Consequently, the margin of error and confidence interval should be considered when reporting the analysis results.

3.9 Conclusion

Generally, entrepreneurial financing can be viewed as an economic decision (Denis, 2004). However, this method of funding a project through the collective effort of friends, family, customers, and individual investors may be socially driven. This method of financing a project allows for the collective efforts of a large number of individuals. CF utilizes social media and the internet as well as some traditional methods of funding. These 21st century CF platforms leverage their networks for greater exposure.

Through this study, I have found that CF can be described as the opposite of most traditional approaches used to finance projects and first-time entrepreneurs. Business Finance teaches in order to raise capital to start a business or launch a new project, you would need a business plan, conduct a market feasibility study, take part in market research, and then take your idea to a limited group of wealthy individuals or institutions. This included banks, investors, and venture capital firms. This limits options to a few key players. If one fails to attract the right investor or firm at the right time your project will be lost.

CF, however, gives the entrepreneur an opportunity to showcase and gain resources needed to complete the project. This approach streamlines the traditional model. With CF, it is much easier for you to get an opportunity to display the business to more interested parties and give them more ways to help grow the business. I took a small step to theorize and empirically test if CF indeed is a process where social participation of funders can be more crucial than

economical motives. I recommend more research regarding the benefits of CF to study this growing and interesting phenomenon. This study indicates that more areas about CF could be explored in the future. For example, future research could examine what other social influence of CF may have, besides caring. This study also shows that human capital of founders is also crucially important in CF success. Therefore, future research could investigate if social capital that founders are involved with could influence CF success.

Next, I move forward to chapter four where I investigate the motivations of the individuals that are providing the funding to those seeking capital. In the next study, I will focus on what occurs in the post funding stage by determining whether or not those who provide financial support to projects are any good at selecting successful projects.

CHAPTER IV

STAKEHOLDER, ENTHUSIAST OR ADVOCATE: BACKER ORIENTATION IN REWARD-BASED CROWDFUNDING

4.1 Introduction

Since the completion of my first essay, CF research has seen an exponential growth. More than 1,000 platforms have been built. While in 2011, about $1.5 billion was raised globally, that number reached $73.9 billion in 2016 and it was projected that about $300 billion in funding would be available for CF project founders in the coming years. Scholars have noted the phenomenal increase and hence have contributed more and more research on CF. Special issues have also been published to address this emerging phenomenon.

As previously mentioned, there are three streams of research with regards to CF, reasons for engaging, founder perspective and backer behavior. The first stream is clearly defined and does not offer much debate. The second stream of research was the focus of my first study where I examined the first side of the CF coin by investigating how founders manage the information asymmetry problem by sending signals of the product, mind or heart. This study provided insight into the founder characteristics that are associated with successful funding among technology projects within reward-based CF.

After examining the most recent literature, I have observed several trends. First, there is debate: Is CF a prosocial behavior or an economic phenomenon? While some believe intrinsic

motivations drive CF backer behavior (Gerber et al., 2012; Boudreau et al., 2015; Zheng et al., 2018; Bagheri et al., 2019; Wang et al., 2019), others argue entrepreneurship orientation such as innovativeness is more important than social motivations such as virtuosity orientation (Moss et al., 2015; Roma, et al., 2017; Chan et al., 2018). As stated in the classic work by Shane and Venkataraman (2000), entrepreneurial endeavor is a process where entrepreneurs explore, evaluate and exploit their opportunities. Consequently, entrepreneurship does not stop at successful funding. Products need to be produced and delivered once they are funded.

Given that the majority of founders cannot guarantee delivery of their products/services as promised (Bruton, Khavul, Siegel, & Wright, 2015; Cholakova & Clarysse, 2015), thus studying the post funding performance of founders deems to be crucial. Recently, researchers have shown that factors influencing entrepreneurial behavior may differ across different stages of the entrepreneurial journey. For example, entrepreneurs may need strong ties at the exploration stage, but weak ties may be effective on the exploitation stage (Redd, Abebe, & Wu, 2016). CF can be divided into two stages: pre-funding and post-funding. In this study, I examine if the factors that help project founders obtain the funding can also affect post-funding satisfaction. Specifically, are those prosocial elements proved to be effective at the pre-funding stage also helpful at the post-funding stage? I would propose that during the pre-funding stage, prosocial behavior may be helpful to project founders while at the post-funding period, economic forces may be more useful.

Second, the majority of the research on CF has focused on the project founders' characteristics. Such research assumes those observable characteristics reflect the non-observable motivations of the funders. This makes sense because it is the backers that eventually determine if a project can move forward or not. This is especially true for platforms like Kickstarter that

operate on an all-or-nothing policy founders receive funds if they meet or exceed their funding goal. However, such an assumption needs to be challenged because research based on the assumption has produced inconsistent research results. For instance, some researchers have found that industry experience can influence funding positively (Ahlers et al., Roma et al., 2017; Chan et al., 2018) while in the first study where I examine product, mind and heart signals, the findings indicated either no significance or an opposing relationship between the two. Moreover, the first study also argued that there is a positive relationship between education and funding behavior, but the results show otherwise. Furthermore, with regards to innovativeness, the results are mixed. Some studies have indicated there is a positive relationship between innovativeness and successful funding (Roma et al., 2017; Chan et al.,) while others have found it to be negative (Scheaf et al., 2018). Consequently, I argue that such inconsistencies may be reconciled if I focus on backers rather than the founders. I note some recent calls for investigating the funders' motivations directly (McKenny et al., 2017; Short et al., 2017). At present only five studies have gathered data directly from backers via interviews or surveys (Gerber et al., 2012; Cholakova & Clarysse, 2015; Radoynovska & King, 2019; Wang et al., 2019; Zhang & Chen, 2019a). Rather than collecting information from CF platforms as has been done in numerous studies, I follow in the steps of previous studies (Dai & Zhang, 2019; Radoynovska & King 2019; Zhang & Chen 2019a) and utilize Amazon Mechanical Turk (MTurk) to survey the backers directly so as to reduce the assumption concern stated above.

This essay therefore intends to make the following contributions. First, I reconcile the debate on whether CF is prosocial behavior or economically motivated. Second, I relax the assumption that project characteristics are what drive backers' funding decisions. Third, I study post-funding backer satisfaction that has yet to be examined in the context of CF.

4.2 Literature Review

4.2.1 Signals

Apart from my first study, there are only a handful of studies that have investigated signals and information asymmetry in CF. For example, Ahlers et al., (2015) finds that signals of both education and industry experience are positively related to the acquisition of funding in equity-based CF as well as limited support for social and intellectual capital signals. Moss, et al., (2015) found that entrepreneurial orientation characteristics signals of autonomy, competitive aggressiveness, and risk taking were all positively related to acquiring funding and repayment in lending-based CF; however, virtuous orientation signals of conscientiousness, courage, empathy and warmth were negatively associated with acquiring funding and repayment. Wu et. al., (2015) found that quality signals of setting a higher highest bid level and a high frequency of announcements (updates) positively associated with garnering more support for a project among Chinese backers. Courtney, et al., (2017) investigate the interaction of multiple signals where they find that positive outside feedback from backers helps manage information asymmetry and increase the likelihood of funding. Kunz et al., (2017) found that signals of long campaign duration and greater project delivery dates were negatively associated with successful projects, but limited reward levels and reward amounts within the levels; social media buzz and being a staff pick were all positively related to success in reward-based CF. Block et al., (2018) found that update signals that focused on campaign development, new funding, business developments, and cooperation projects were all positively related to acquiring funding in equity-based CF. Scheaf et al., (2018) show that signals innovativeness such as the possession of a patent are negative in reward-based CF and positive in equity-based CF with regards to funding achievement. Furthermore, media coverage as a high cost signal was shown to be positive in

both equity and reward-based CF. Kim & Viswanathan (2019) take a look at information asymmetry and signaling from the perspective of the behavior of experienced investors and how it influences other backers. They find that experienced investors pledge funds early and influence non-experienced backers to give in lending-based CF. Finally, Thies et al., (2019) found that signals created by backers during reward-based CF such as a successful campaign and being a staff pick indicate quality and increase the likelihood of acquiring venture capital funding. Despite the interesting findings of the aforementioned studies examining the information asymmetry dynamic in CF, none of the studies actually gather data directly from the backers. Each study uses data from different CF platforms and selects various proxies to test their hypotheses. Only Thies et al., performs a qualitative study where they conduct semi-structured interviews with 10 students to examine their thoughts regarding the comparison of four example campaigns. Consequently, it is necessary to survey founders to see if these findings hold true. Moreover, as previously mentioned, entrepreneurship does not stop once the funding is attained. Thus, it would be helpful to know which of these signals are related to the completion of a project or delivery of a product.

In my first study I argued how founders can utilize three types of signals to entice backers to support their projects. They were, product or quality signals, mind or human capital of the founder, and heart or caring characteristics. Accordingly, these signals can also be divided into prosocial or economically motivated. For example, the signals of the mind with regards to the human capital characteristics of the founder can be argued they are economically motivated because founders that highlight their industry and education experience are signaling that they can meet the task of completing or delivering on the project they are proposing. On the other hand, those associated with the heart signal that the founder cares by giving to other campaigns

and providing updates on their project, which taps into the prosocial motivations of backers. With regards to the signals of the product, I argue that they can be either prosocial or economic related depending on the backer. For instance, in terms of innovativeness, backers may support them as a result of wanting to be a part of seeing new technology come to the masses and help others, whereas others may provide funds because the proposed technology product may save them time or money in their daily lives. Consequently, all of the previous research in CF could be grouped into either a prosocial or economic category. Next, I will discuss the prosocial related literature followed by the economic related literature.

4.2.2 Prosocial vs. Economic

4.2.2.1 Prosocial Behavior

The CF research that focuses on prosocial behavior primarily ties into what drives the motivation for backers to give to a project. It can be assembled into five groups, caring characteristics, industry/category, intrinsic factors, geography, and founder composition. As I have previously stated and was found in the first study, caring characteristics such as founders backing other projects (Colombo et al., 2013; Kunz et al., 2017; Chan et al., 2018) or providing updates as well as the quantity of updates or posts by the founder to the campaign (Kuppuswamy & Bayus 2013; Mollick, 2014; Andre et al., 2017; Kunz et al., 2017) are positively related and increase the likelihood of backers pledging funds to a project. Other characteristics that influence are the industry or project category where, projects in the arts, theory, games, film, publishing have been shown to be favorable towards prosocial behavior (Davidson & Poor, 2016; Gafni et al., 2019) but projects in the technology category have been found to be positively related to prosocial behavior (Greenberg & Mollick, 2014; Wu et al., 2015; Greenberg & Mollick 2017)

and negatively related (Andre et al., 2017). Moreover, a number of studies have found that intrinsic factors such as altruism, desire to contribute to a common cause, human interest narratives, reciprocal giving, intrinsic-individual, authenticity, self-identity (Burtch et al., 2013; Boudreau et al., 2015; Allison et al., 2015; Andre et al., 2017; Bagheri et al., 2019; Radoynovska & King, 2019; Shahab et al., 2019) all contribute positively to the likelihood of backers providing funding. Factors such as geographic location have been shown to be both positive and negative where the presence of territorial social capital negatively affects funding (Giudici et al., 2013) but proximity (Lin & Viswanathan, 2015), local altruism and localized relational capital are positively related (Giudici et al., 2018). The composition of the founder or founding team has also influenced prosocial behavior. For example, positive relationships were found for projects with more than one founder or included a female (Frydrych et al., 2014; Greenberg & Mollick, 2014; Greenberg & Mollick, 2017; Chan et al., 2018), first-time founders (Courtney et al., 2017). The aforementioned studies all tap into the desire to help which is akin to prosocial behavior. Next I discuss the CF literature that affects backer's donation intention via an economic persuasion.

4.2.2.2 Economic Motivations

The research concentrating on the economic motivations of backers can also be assembled into five groups which include financial return, herding dynamics, extrinsic factors, staff pick, and innovativeness. With regards to the studies dealing with the financial return group, they have found that backers are more interested in factors and signals that highlight the success of the project or seeing a return on their investment (Cholakova & Clarysse, 2015; Moss et al., 2015; Block et al., 2018; Scheaf et al., 2018). Other studies highlight the herding dynamics

that backers fall into as a result of others contribution behavior. For instance, Kuppuswamy & Bayus (2013) found that the more individual backers contribute to a project the less likely others will provide funding; however, other studies indicate that backers are influenced to contribute when experienced investors give funds early (Kim & Viswanathan, 2015) or give a high level donation (Koning & Model, 2013). Various extrinsic factors were found to be positively related to the funding intention of backers including, image enhancement (Cox et al., 2018), material rewards (Wei, 2018; Li & Wang, 2019), and a sense of control or ownership in the project/product (Zheng et al., 2018). Another item associated with an economic motivation of backers is the occurrence of a project being selected as a staff pick (Dai & Zhang, 2019; Li & Wang, 2019) as those projects that are featured as a staff pick are typically unique or outstanding. Finally, the last economic factor is innovativeness where studies have shown that backers respond positively to the presence of patents (Roma et al., 2017; Chan et al., 2018; Scheaf et al., 2018).

As noted in the previous sections, the debate of whether CF is prosocial or economic driven is clearly not settled. A review of the groupings for both prosocial and economic are illustrated in table 4.1. Consequently, further exploration is warranted to try and settle this ongoing debate. Next, I will make the case that backers contribution orientation can be characterized into one of three types that correspond to the product, mind and heart signals.

Table 4.1. Prosocial and Economic Groupings

Caring characteristics	+ founder backing other projects + updates (quantity & type)	Colombo et al., 2013; Kuppuswamy & Bayus 2013; Mollick, 2014; Andre et al., 2017; Kunz et al., 2017; Chan et al., 2018
Industry/Category	+ arts, theory, games, film, publishing, technology - technology	Greenberg & Mollick, 2014; Wu et al., 2015; Davidson & Poor, 2016; Andre et al., 2017; Greenberg & Mollick, 2017; Gafni et al., 2019
Intrinsic factors	+altruism + desire to contribute to common cause + human interest narratives + reciprocal giving + intrinsic-individual + authenticity + self-identity	Burtch et al., 2013; Boudreau et al., 2015; Allison et al., 2015; Andre et al., 2017; Bagheri et al., 2019; Radoynovska & King, 2019; Shahab et al., 2019
Geography	- territorial social capital + proximity + local altruism + localized relational capital	Giudici et al., 2013; Lin & Viswanathan 2015; Giudici et al., 2018
Founder composition	+ more than one founder + female founders + first time founders	Frydrych et al., 2014; Greenberg & Mollick, 2014; Courtney et al., 2017; Greenberg & Mollick, 2017; Chan et al., 2018
Financial return	+ return on investment	Cholakova & Clarysse, 2015; Moss et al., 2015; Block et al., 2018; Scheaf et al., 2018
Herding	- contribution intention + high level donation + experienced investors	Kuppuswamy & Bayus, 2013; Koning & Model, 2013; Kim & Viswanathan, 2015
Extrinsic factors	+ image enhancement + material rewards + sense of control or ownership	Cox et al., 2018; Wei, 2018; Zheng et al., 2018; Li & Wang, 2019
Staff pick	+ featured on platform homepage	Dai & Zhang, 2019; Li & Wang, 2019
Innovativeness	+ patents	Roma et al., 2017; Chan et al., 2018; Scheaf et al., 2018

4.3 Theoretical and Hypothesis Development

4.3.1. Categorization of Backers Contribution Orientation

Just as I have proposed that founder signals can be separated into three distinct groups of product, mind, and heart, I argue that backer's contribution orientation can also be categorized into three unique types based on their response to founder and project signals. The types I propose are enthusiast orientation, stakeholder orientation, and advocate orientation. Furthermore, I argue that the different types of orientation are exhibited in response to what signals the backers find more important or are influenced by the most.

With regards to ***enthusiast orientation***, I argue that these backers are primarily motivated by their focus or level of importance that they place on signals that emphasize a product's features, benefits, innovativeness, and radicalness. These individuals are most concerned with what the product will be able to do for them. Moreover, as noted in my previous study, they may be the innovators and early adopters based on the production diffusion curve who are willing to take risks to try an unproven product. Hence, the radicalness of the product or service may be of significant attraction to them.

In terms of backers that are drawn to signals of the mind with regards to the human capital such as the education or industry experience of the founder, I argue that they exhibit ***stakeholder orientation***. These individuals operate in a more traditional sense and thus are more concerned with a return on their investment, feasibility of the project or not being wasteful with their pledge. Consequently, they also have clear expectations as to level of service, delivery time, or quality of product they expect to receive.

Finally, the backers who are not as primarily motivated by signals that stress those associated with product or mind, are those that are aligned with the caring signals of a founder.

Accordingly, this type of backer orientation is labeled ***advocate orientation.*** For these backers, their expectation to receive the product is not of high importance. These individuals are primarily motivated to give to a project because they feel compelled to help out a founder or support them monetarily in order to see them succeed. Furthermore, they may give simply because they like or feel a connection to the founder. They can be likened to sports fans that root for their home team or alma mater whether they win or lose. Now that I have identified three forms of backer orientation, it would be helpful to understand how they correspond to the post-funding satisfaction of backers.

4.3.2 Post-funding Satisfaction

Despite all the growth in recent years regarding research into CF, a glaring whole has been omitted from the investigations, that is what happens after a founder succeeds at acquiring funding for their project. Specifically, whether or not these founders can actually deliver on their promise within the time frame they stated and with the quality they claimed. Moreover, investigating whether or not the backers were happy with their donation has been completely ignored in the previous literature. With regards to studies that investigate what happens after a campaign ends, only two were found. In both studies their area of focus was what characteristics lead to the likelihood of receiving funds from professional investors after the campaign has been completed (Roma et al., 2017; Thies et al., 2019). Unfortunately, in both cases neither study investigates whether or not the founder(s) actually were successful in executing their plans. Consequently, this clear gap in the literature is of utmost importance to investigate.

In the next section I will begin the theoretical and hypothesis development section that will outline the investigation into whether or not backers exhibit certain behaviors based on the

prioritization of specific signals and whether or not their focus on specific signals can help predict post-funding satisfaction of backers.

4.3.3 Stakeholder Orientation

With regards to the three types of backer orientation identified (enthusiast, stakeholder, and advocate), I argue that some types are better at selecting projects that actually deliver on their promises in the post-funding period. For instance, backers that exhibit ***stakeholder orientation*** are more likely to support projects that can execute their plans because they are focused on the signals that highlight the feasibility of the project, qualifications of the founder and others. These backers are primarily motivated by signals of the mind which include human capital as argued in the first study. In their study Ahlers et al., (2015) found that backers responded to founders who possessed a specialized degree such as an MBA, and those that provided a detailed plan regarding their project. Another human capital trait of experience that was shown to be positively related, was serial or repeat founders tended to be more successful (Davidson & Poor 2016) and incorporated what they learned from their mistakes in order to succeed (Leone & Schiavone, 2019). Moreover, Cholakova & Clarysse (2015) note that backers are motivated by financial and utilitarian factors. Additionally, Kim & Viswanathan (2019) found that backers will follow other experienced backers after they pledge funds early. Thus, ***stakeholder orientation*** takes into account the various signals that are focused or related to backers seeing a return on their investment. As a result of having more characteristics associated with signals of the mind, these founders are more capable in being able to deliver the product in a timely manner and with the promised quality. Therefore,

Hypothesis 1: Stakeholder orientation is positively related to post-funding satisfaction.

4.3.4 Advocate Orientation

In terms of ***advocate orientation*** is characterized by backers that largely ignore signals of the founder's human capital and of the innovativeness of the product otherwise known as those associated with the mind and product. This is due to the fact that the backer's primary motivation is the desire to help and support the founder. For example, it has been previously found that the primary motivation for a backer to contribute funds is altruism (Burtch et al., 2013). Moreover, another study found that backers are more likely to donate to a project in which the founder makes a direct plea for help (Dai & Zhang, 2019). Previous research has also indicated that backers contribute to projects where they are seeking feelings of ownership and have intimate knowledge of the project based on the updates provided by the founder (Zheng et al., 2018). Moreover, these backers respond to founders that set a lower funding goal (Frydrych et al., 2014) and invest a significant amount of time in their campaigns as indicated by an increased social media buzz and a robust frequently asked question (FAQ) section (Kunz et al., 2017). Finally, these backers are more interested in image enhancement or not being greedy by providing more support than the required reward level and then proceeding to decline the reward (Andre et al., 2017; Cox et al., 2018), and to those projects where they have a personal interest and or connection to the project (Bagheri et al., 2019). Moreover, the founders supported by backers that demonstrate ***advocate orientation*** are the least likely to actually come through and deliver. Since ***advocate orientation*** backers primarily ignore the signals of product and mind, they are supporting founder's that may not have the adequate skill set to meet the expectations of quality and delivering the product on time or at all. Hence,

Hypothesis 2 Advocate orientation is negatively related to post-funding satisfaction.

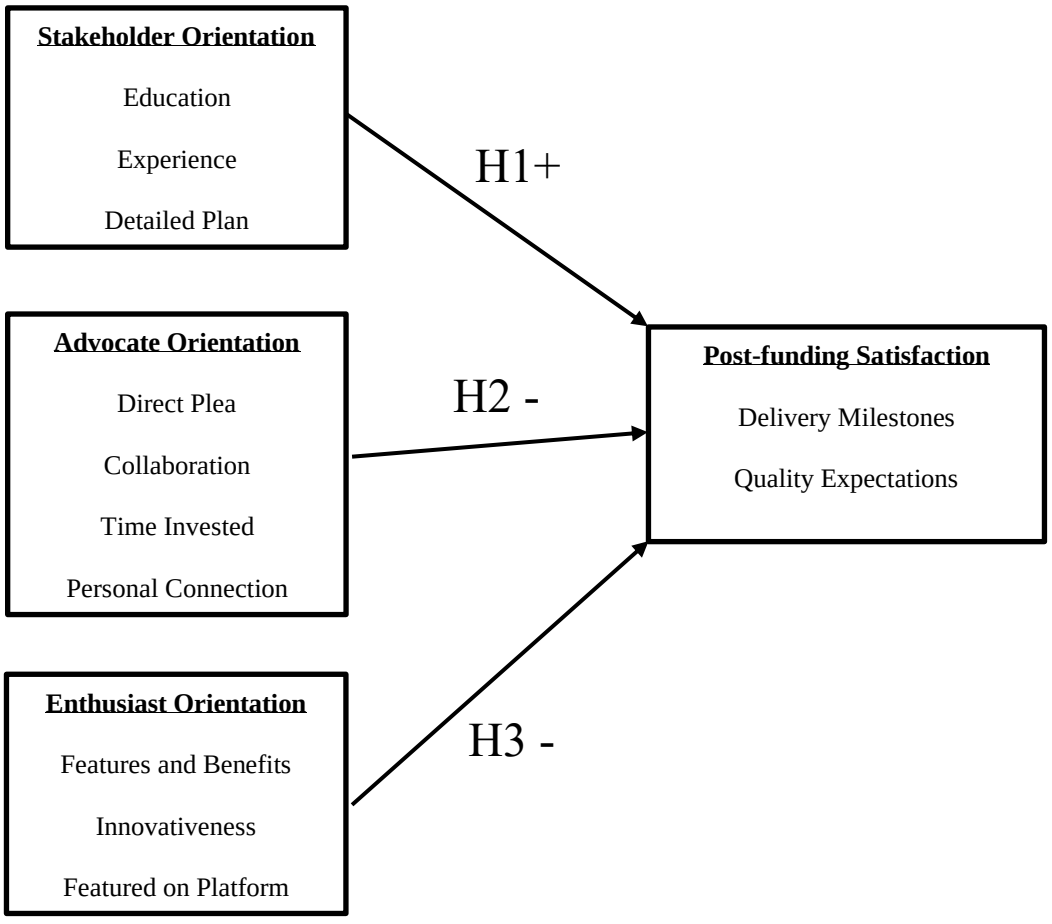
4.3.5 Enthusiast Orientation

Finally, with regards to ***enthusiast orientation***, these backers are primarily motivated to contribute to a project based on the features and benefits it offers, the innovativeness of the product itself as well as other signals that highlight the uniqueness of the product. For example, Roma et al., (2017) found that projects possessing a patent and excess social capital can increase their likelihood of acquiring professional funding but not the delivery of the product. Other factors that were shown to influence backers to support a project are the positive first impression gained from the consumer benefits stated in the description (Zhang & Chen, 2019b) and the project being selected as a staff pick or popularity index on the CF platform (Li & Wang, 2019; Thies et al., 2019). Moreover, as noted by Wei (2018), backers just want the product and are not interested in symbolic rewards. Furthermore, Scheaf et al., (2018) found that backers do not care if the venture is financially viable, they just want to make sure they receive their rewards. In summary, backers in this category are primarily focused on signals that are related to them being able to receive the product. Hence, they may not pay attention to the complexity of the product by way of its radicalness. Consequently, the more radical a product is the less likely the founder may be able to make good on their promise because it may end up being more complicated than they anticipated. As such, enthusiast orientation does not prioritize signals of the mind nor caring and mainly focuses on those associated with the product. Furthermore, as previously mentioned, the radicalness of a product may be more complex to execute and deliver. Founders may not possess the required skills and abilities to be able to meet expected delivery times or quality standards. Hence, the post-funding satisfaction of the project should suffer. Thus,

Hypothesis 3: Enthusiast orientation is negatively related to post-funding satisfaction.

In summary, the signals that backers prioritize influence their motivation to contribute funds to a CF campaign. Moreover, the motivation can manifest one of three forms of orientation, stakeholder, enthusiast, or advocate orientation. Consequently, the three different types of orientation are attributed to predicting the post-funding satisfaction of the backers. The projects that are funded as a result of backers that prioritize stakeholder orientation are most likely to actually deliver on their promise and meet the quality they seek. In contrast, the projects that are funded as a result of backers that prioritize enthusiast or advocate orientation are not likely to meet their post-funding satisfaction with those supported by advocate orientation being the least likely. These relationships are illustrated in Figure 4.1.

Figure 4.1 Theoretical Model



4.4 Methodology

In order to evaluate the hypotheses developed in this study, I follow previous studies such as Dai & Zhang, (2019), Radoynovska & King (2019) and Zhang & Chen (2019a) and utilize Amazon MTurk to recruit individuals to respond to a questionnaire. As noted in previous works, survey participants gathered through MTurk are typically more diverse than university students (Buhrmester et al., 2011; Mason and Suri 2012), thus providing a better representation of the heterogeneous population that participates in CF.

In this case I plan to extend the research from my previous study and focus on reward-based CF projects. Accordingly, this paper seeks to understand the motivation of backers and the signals they respond to in reward-based CF. Specifically, I surveyed individuals who have previously given to a successfully funded campaign. The participants were recruited via Amazon MTurk and invited to respond to a survey about online fundraising in exchange for $2. Respondents were presented with a set of screening questions that filtered them out in order to capture those who had previously backed a campaign that had met its funding goal. Those that did not meet the criteria were not invited to continue to the survey. Instead of utilizing sample projects that provide hypothetical scenarios for them to respond to, the survey asks them to think about a campaign they have previously participated in and respond to the questions based on the CF campaign they actually gave their money to.

I developed a set of statements that correspond to each of the backer orientations stakeholder, enthusiast, and advocate along with the post-funding satisfaction of the backers. The respondents were instructed to respond to how well they agree or disagree with the statements that corresponded to the types of orientation and post-funding satisfaction. A five-point Likert scale was utilized with one side of the spectrum being strongly disagree and the other strongly

agree. I also developed a set of statements that investigate the post-funding satisfaction of the backers. The same five-point Likert scale was utilized for this analysis as well.

4.4.1 Sample Descriptives

There was a total of 344 responses to the survey that met the prequalification. In order to be able to move forward to answer the survey, respondents had to have donated to a CF campaign that met or exceeded its funding goal. A further analysis identified another 32 responses which were invalidated. The final sample consisted of 312 valid responses.

The demographic characteristics were as follows; the average age of the participants in the sample was 36.7 with ages 30 to less than 50 accounting for the majority of the sample (64.4%). The gender included 35.3% of them female and 64.7% were male. In addition, 84% of them were employees and 11.2% were self-employed. The ethnicity varied from 62% white, 16% African American, 15% Hispanic, and 6% Asian American. The income level included 56% making between $30,000 and $75,000 annually, 25.3% making between $75,001 and $150,000 annually, 14.4% making less than $30,000 annually, and 4.2% making over $150,000 annually. The majority (69.6%) of the respondents did not own a business. With regards to the project category, 67% were creative and 33% were innovation projects. Finally, approximately 58% of the respondents came from 7 states, which included California (17.6%), Texas (14.7%), Florida (6.1%), Pennsylvania (5.4%), Illinois (5.1%), Colorado (4.5%), and New York (4.5%). The results are displayed in table 4.4.

Table 4.2 Demographic Statistics

	Frequency	Percentages	Cumulative Percentages
Age			
Less than 30 years	79	25.3%	25.3%
30 to less than 40 years	127	40.7%	66%
40 to less than 50 years	74	23.7%	89.7%
50 to less than 60 years	23	7.4%	97.1%
60 years or greater	9	2.9%	100%
Total	312		
Category			
Creative	209	67%	67%
Innovation	103	33%	33%
Total	312	100%	100%
Employment Status			
Employee	262	84.0%	84.0%
Self-employed	35	11.2%	95.2%
Student	3	1%	96.2%
Unemployed	9	2.9%	99.0%
Other	3	1%	100%
Total	312	100%	
Ethnicity			
African American	50	16.0%	16.0%
Asian	18	5.8%	21.8%
Hispanic	46	14.7%	36.5%
White	193	61.9%	98.4%
Other	5	1.6%	100%
Total	312	100%	
Gender			
Male	202	64.7%	64.7%
Female	110	35.3%	100%
Total	312	100%	
Income Level			
Less than $30,000	45	14.4%	14.4%
$30,000 to less than $75,000	175	56.1%	70.5%
$75,000 to less than $150,000	79	25.3%	95.8%
$150,000 or greater	13	4.2%	100%
Total	312	100.0%	
Gender of Founder(s)			
Male	209	67%	67%
Female	56	17.9%	84.9%
Both Male and Female	47	15.1%	100%
Total	312	100%	
Business Owner			
No	217	69.6%	69.6%
Yes	95	30.4%	100%
Total	312	100%	

4.4.2 Dependent Variable

The dependent variable for this study is *post-funding satisfaction*. As previously mentioned, I developed a set of statements that asked backers about their post-funding experience. The respondents were asked to answer how well they agreed or disagreed to various statements utilizing a 5-point Likert scale where 1 denotes "strongly disagree" and 5 denotes "strongly agree". Specifically, I measure the degree to whether the founder was able to meet the delivery milestones and quality expectations they set for the project. The measures are outlined in table 4.3

Table 4.3 Post-funding Satisfaction Measures

Post-funding Satisfaction
Did you receive the product
I was satisfied with the follow up by the founder
The project founder kept his/her promise
The project founder delivered the product on time
The quality of the product met my expectations
The product was not the same as what was promised
I would support the founder again
I regret supporting the project
I would recommend the project to others

4.4.3 Independent Variables

The independent variables for this study include the three types of orientation identified in the theoretical and hypothesis development sections. Moreover, each proposed orientation has its own set of characteristics that correspond to it. For example, with regards to *stakeholder orientation*, signals of education, experience, and a detailed plan are what drives successful post-funding satisfaction. Consequently, the respondents were asked to answer how well they agreed

or disagreed to statements that corresponded to each. The specific measures are outlined in table 4.4.

Table 4.4 Stakeholder Orientation Measures

Stakeholder Orientation
Experience measures
The project founder had a high level of industry experience
The project founder had a high level of experience with crowdfunding projects
Education measures
The project founder was smart
The project founder had a high level of education
Detailed plan measures
The project founder was organized
The project founder paid attention to detail
The project founder had a clear plan of how he/she planned to complete their project

In terms of *advocate orientation,* is the degree to whether the founder made a direct plea for support, the sense of collaboration the backers felt towards the project, the time invested by the founders, and whether or not the backers had a personal connection to the project. Accordingly, a set of statements was developed for each characteristic and participants were asked to answer how well they agreed or disagreed to various statements regarding the project. The statements are outlined in table 4.5.

Table 4.5 Advocate Orientation Measures

Advocate Orientation
Direct Plea
The founder made it clear that he/she needed help
The founder would not meet his/her goal without my financial contributions
Collaboration measures
I contributed to the development of the product and/or project
My input and feedback were important to the founder
Time Invested measures
The founder invested a lot of time providing updates on the status of the project
The founder updates were helpful
The founder invested a lot of time preparing the project pitch
Personal Connection measures
The product and/or project was something I believed in
I had a connection to the product and/or project
The founder cared about me

Finally, the specific characteristics that are attributed to *enthusiast orientation* include, the characteristics that correspond to backer motivation include, the features and benefits, innovativeness, and whether the project was featured on the CF platform. Once again, I developed a set of statements where respondents were asked to answer how well they agreed or disagreed to various statements regarding the project. The measures are outlined in table 4.6.

Table 4.6 Enthusiast Orientation Measures

Enthusiast Orientation
Features and Benefits measures
The benefits provided by the product and/or project were important to me
The features of the product and/or project were important to me
The product and/or project could save me time
The product and/or project could save me money
Innovativeness measures
The product and/or project was a better idea of something that already exists
The product and/or project was completely new or something I had never seen before
The product and/or project was not very unique
The product and/or project was radical and ground-breaking
Featured on Platform measures
I supported the product and/or project because it was featured on the crowdfunding platform
The crowdfunding platform cared about the success of the product and/or project
The crowdfunding platform influenced what product and/or project I picked to support

4.4.4 Control Variables

The control variables selected for the study were chosen after reviewing the previous research on backers. Consequently, I control for age (Cholakova & Clarysse 2015; Zhang & Chen, 2019b;), category or industry (Allison et al., 2015; Andre et al., 2017; Burtch et al.,2013; Cox et al., 2018; Dai & Zhang, 2019; Kuppuswamy & Bayus, 2013; Scheaf et al. 2018; Shahab et al., 2019; Zhang & Chen, 2019b), employment status (Radoynovska & King, 2019), ethnicity (Greenberg & Mollick, 2017; Scheaf et al., 2018;), gender (Cholakova & Clarysse, 2015; Radoynovska & King, 2019), geographic location (Dai & Zhang, 2019; Scheaf et al., 2018), and income (Cholakova & Clarysse, 2015; Radoynovska & King, 2019; Zhang & Chen, 2019b; Zheng et al., 2018). I also include the gender of the founder and whether the backer owns a

business. Controlling for these variables will help determine the relationships defined in the hypotheses.

4.5 Statistical Analysis

I begin the statistical analysis by examining the set of statements that were developed in order to measure the stakeholder, enthusiast, and advocate orientations. The statements were developed in order to test the signal characteristics associated with each type of behavior. For example, founder education and experience along with having a detailed plan are related to stakeholder orientation. Enthusiast orientation consists of signals of features, benefits, and innovativeness of the product along with whether or not it was featured on the platform. Finally, Advocate orientation consists of four signals, a direct plea by the founder, feeling of collaboration, time invested by the founder and whether or not the backer felt a personal connection to the product.

Utilizing the 312 valid surveys from the data set, I performed an exploratory factor analysis in order to determine the factor solution to each of the proposed behaviors. As stated by Costello and Osborne EFA is an exploratory analytical tool that does not include inferential statistics and is most appropriate for use in exploring a data set (2005; 8). Additionally, EFA is a data-driven approach in which no a priori number of common factors is specified, and few restrictions are placed on the patterns of relations between the factor loadings (Fabrigar et al., 1999; 277). There was a total of 37 variables across the four sets of measures. Stakeholder orientation accounted for 7 statements, enthusiast orientation for 11, advocate orientation for 10, and post-funding satisfaction for 9.

4.5.1 Extraction and Rotation

The sample size adhered to the observations to item ratios of 10:1 that have been used by many previous studies (Costello, and Osborne, 2005), and was analyzed using SPSS factor analysis extraction method of principal component analysis (PCA) and subsequently rotated using a varimax rotation. Any remaining missing values in the observations were handled through the listwise deletion method in SPSS. The first output indicated the presence of seven components with eigenvalues greater than one. Next, I forced the variables into a four-factor solution in accordance to the three orientations and post-funding satisfaction that was being measured in the survey. I then proceeded to drop problematic items in accordance with the recommendations made by Costello and Osborne (2005).

The final model composed of four components that combined accounted for 63% of the variance with a Kaiser-Meyer-Olkin measure of sampling adequacy of .839 that indicated the appropriateness of factor analysis (Hutcheson and Sofroniou, 1999). All of the items had extracted communalities above .50. The four-factor model as illustrated in table 4.7, included three items for each of the final components; which is the minimum item recommendation (Costello and Osborne, 2005).

Table 4.7 Four-factor model

Rotated Component Matrix [a]				
	Component			
	1	2	3	4
The product and/or project could save me money	0.884			
The product and/or project could save me time	0.876			
The CF platform influenced what product and/or project I picked to support	0.816			
The project founder delivered the product on time		0.85		
The quality of the product met my expectations		0.828		
I would support the founder again		0.768		
The founder invested a lot of time providing updates on the status of the project			0.816	
The founder invested a lot of time preparing the project pitch			0.797	
The founder updates were helpful			0.707	
The project founder had a high level of experience				0.837
The project founder had a high level of education				0.628
The project founder was smart				0.44
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. [a] Rotation converged in 5 iterations.				

Subsequently, an analysis of the reliability statistics indicates that each component meets or exceeds the 0.6 threshold, which is indicative of an acceptable level of reliability (Bagozzi & Yi, 1988; Ursachi et al., 2015). With the levels including .851, .824, .768, and .6 for enthusiast orientation, post-funding satisfaction, advocate orientation, and, stakeholder orientation respectively, which indicates a good inter-item reliability. I then proceeded to transform each component to create four new variables representing each one of the components. This was completed individually by taking the sum of the items and dividing the number of items in the component.

In order to test for the potential of common method bias concerns, I performed a factor analysis to test whether all variables from the survey loaded on a single factor. The result of the one factor model demonstrated a poor fit, whereas had it fit the data well there could have been concerns for common method bias (Korsgaard & Roberson, 1995). Moreover, as previously mentioned the EFA indicated 7 factors with Eigenvalues greater than 1. Furthermore, the factor showed it was a poor fit with the majority of the extraction values no greater than .30. Additionally, the factor only explained 24.86% of the variance.

4.5.2 Hierarchical multiple regression

Next I check the extent to which the different orientations affect the post-funding satisfaction of backers. I test this by utilizing hierarchical multiple regression. This technique is appropriate to employ when analyzing the independent-dependent relationships and involves the inclusion of independent variables in a step-by-step process (Hair et al., 1998). Moreover, it allows for the assessment of whether, and if so, how much, the inclusion of additional independent variables account for the variation beyond what was previously indicated in the variables entered prior (Sheshkin, 2020). Thus, I begin with the set of control variables first, followed by stakeholder orientation, enthusiast orientation, and advocate orientation. The first model tests the effects of the regressing post-funding performance on the control variables. In the second model the independent variable representing stakeholder orientation was added followed by the control, stakeholder, advocate, and enthusiast variables in the final model. The results are discussed in the following section.

Prior to performing the regression analysis, and again after the regression variate has been formed, the data is examined to ensure that the assumptions of hierarchical regression are

met. This allows for the implementation of any corrections (e.g. transformations), if necessary, which provide better predictions and more accurate evaluations (Hair et al., 1998). The assumptions include normality, linearity, and homoscedasticity. The analysis was performed with the variables normalized and non-normalized. The results were consistent in both scenarios and did not have any significant change from either form.

Another concern with regards to multiple regression is the presence of multicollinearity of the independent variables, as high correlations among the independent variables may have an effect on the stability of regression coefficients, which could make the results untrustworthy (Huck, 2012; Pedhazur, & Schmelkin, 1991). The analysis performed in SPSS included the tolerance and variance inflation values (VIF) did not detect the presence of multicollinearity. Moreover, there were no correlations values greater than .90, which is indicative of multicollinearity (Sheskin, 2007). The correlations for the variables are presented in table 4.8.

Table 4.8 Correlations

	Post	Age	Cat.	Emp. Status	Ethnicity	Gender	State	Income Level	Gender of Founder(s)	Business Owner	Stake-holder	Enthusiast	Advocate
Post	1												
Age	0.038	1											
Category	0.089	-.119*	1										
Employment Status	-0.035	.193**	0.044	1									
Ethnicity	-0.069	0.075	0.035	0.029	1								
Gender	0.038	0.095	-.176**	0.036	0.065	1							
State	-0.047	0.015	0.014	0.06	-0.034	0.111	1						
Income Level	0.076	.176**	0.068	-.121*	0.037	0.017	0.044	1					
Gender of Founder(s)	0.055	.121*	-.161**	0.04	0.035	.281**	0.106	0.019	1				
Business Owner	0.033	0.063	-.153**	0.006	-.121*	-0.022	-.119*	0.017	-0.11	1			
Stakeholder	.463**	0.027	.136*	-0.029	-0.006	-0.065	-0.062	0.038	-0.043	0.083	1		
Enthusiast	.120*	-0.013	-0.059	-.214**	-0.07	0.029	-0.081	-0.031	-0.098	.338**	.345**	1	
Advocate	.501**	0.005	0.1	-0.01	-0.027	-0.105	-0.048	0.072	-0.012	0.058	.502**	.273**	1

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

4.6 Results

4.6.1 Regression

As previously mentioned, multiple regression was used to analyze the data. The descriptive statistics are displayed in table 4.9. In order to test the effect of stakeholder, enthusiast, and advocate orientation on post-funding satisfaction, a hierarchical regression was conducted in four sequential models. Control variables were entered in Block 1, stakeholder orientation was entered in Block 2, advocate orientation and enthusiast orientation were entered in Block 3.

Table 4.9 Descriptive Statistics

Descriptive Statistics	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Post	312	4	1	5	4.0284	0.04567	0.8067	0.651	-0.953	0.138	1.571	0.275
Age	312	54	22	76	36.71	0.562	9.918	98.373	0.981	0.138	0.854	0.275
Category	312	1	0	1	0.33	0.027	0.471	0.222	0.726	0.138	-1.483	0.275
Employment Status	312	4	1	5	1.26	0.04	0.707	0.5	3.379	0.138	11.904	0.275
Ethnicity	312	4	1	5	3.27	0.065	1.145	1.311	-1.131	0.138	-0.209	0.275
Gender	312	1	0	1	0.35	0.027	0.479	0.229	0.62	0.138	-1.626	0.275
State	312	49	1	50	23.63	0.943	16.649	277.187	0.136	0.138	-1.638	0.275
Income Level	312	3	1	4	2.19	0.041	0.727	0.529	0.344	0.138	0.061	0.275
Gender of Founder(s)	312	2	1	3	1.48	0.042	0.743	0.553	1.177	0.138	-0.179	0.275
Business Owner	312	1	0	1	0.3	0.026	0.461	0.212	0.854	0.138	-1.279	0.275
Stakeholder	312	2.67	2.33	5	4.2115	0.03461	0.61142	0.374	-0.637	0.138	-0.188	0.275
Advocate	312	4	1	5	4.23	0.04	0.714	0.51	-1.672	0.138	4	0.275
Enthusiast	312	4	1	5	3.3622	0.06802	1.2015	1.444	-0.58	0.138	-0.783	0.275
Valid N (listwise)	312											

I predicted that stakeholder orientation was positively related to post-funding satisfaction. The results indicate the relationship to be positive and significant (β =.448, Sig. = .000), thus providing support for the first hypothesis. With regards to the proposed negative relationship

between advocate orientation and post-funding satisfaction, the analyses indicated the relationship was significant; however, the relationship was positive which contradicts the second hypothesis (β = .468, Sig. = .000). Finally, with regards to the effect of enthusiast orientation on post-funding satisfaction, the relationship was both significant and negative (β = -.081, Sig. = .049). The results of the hierarchical regression are illustrated in table 4.10. I also explored whether there are any interactions between the different backer orientations proposed in determining post-funding satisfaction. To test for any possible interaction effects between the three backer orientations, I computed interaction terms for each. I ran the same set of multiple regressions and found no significant interaction effects among the different backer orientations.

Table 4.10 Multiple Regression on Post-funding Satisfaction

Coefficients [a]									
Model	Model 1			Model 2			Model 3		
	B	Sig.	VIF	B	Sig.	VIF	B	Sig.	VIF
Post-funding	3.964	0.000		1.263	0.002		0.562	0.155	
Age	0.004	0.493	1.128	0.002	0.716	1.13	0.002	0.595	1.131
Category	0.226	0.045	1.107	0.096	0.347	1.131	0.071	0.452	1.134
Employment Status	-0.05	0.497	1.081	-0.028	0.676	1.082	-0.065	0.307	1.149
Ethnicity	-0.061	0.171	1.029	-0.061	0.127	1.029	-0.057	0.125	1.03
Gender	0.09	0.421	1.124	0.119	0.23	1.126	0.189	0.043	1.145
State	-0.003	0.308	1.046	-0.002	0.465	1.049	-0.002	0.494	1.049
Income Level	0.072	0.316	1.076	0.063	0.326	1.076	0.026	0.659	1.09
Gender of Founder(s)	0.084	0.244	1.136	0.082	0.199	1.136	0.056	0.354	1.146
Business Owner	0.076	0.501	1.081	-0.007	0.935	1.091	0.041	0.681	1.214
Stakeholder				0.664	0	1.038	0.448	0.000	1.455
Advocate							0.468	0.000	1.386
Enthusiast							-0.081	0.049	1.407

[a] Dependent Variable: Post

After the hierarchical regression analysis indicated significant relationships between the three backer orientations and post-funding satisfaction, I performed further post hoc analyses. I chose to investigate the specific measures within each backer orientation. For instance, with regards to stakeholder satisfaction, I took the measures for experience (two survey questions), education (two survey questions), and detailed plan (three survey questions) and transformed them into individual measures in SPSS by combining them and utilizing the mean. I proceeded to do the same for advocate orientation measures of direct plea (two survey questions), collaboration (two survey questions), time invested (three survey questions), and personal connection (three survey questions). Next, I transformed the individual measures of enthusiast orientation, features and benefits (four survey questions), innovativeness (four survey questions), and featured on platform (three survey questions). Finally, I transformed the dependent variable by utilizing all of the measures for post-funding satisfaction (eight survey questions, with the exception of the binary measure of whether the respondent received the product or not. The descriptive statistics for the post hoc variables are illustrated in table 4.11.

Table 4.11 Descriptive Statistics – Post hoc

Descriptive Statistics	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Post-funding	312	4	1	5	4.0284	0.04567	0.8067	0.651	-0.953	0.138	1.571	0.275
Age	312	54	22	76	36.71	0.562	9.918	98.373	0.981	0.138	0.854	0.275
Category	312	1	0	1	0.33	0.027	0.471	0.222	0.726	0.138	-1.483	0.275
Employment status	312	4	1	5	1.26	0.04	0.707	0.5	3.379	0.138	11.904	0.275
Ethnicity	312	4	1	5	3.27	0.065	1.145	1.311	-1.131	0.138	-0.209	0.275
Gender	312	1	0	1	0.35	0.027	0.479	0.229	0.62	0.138	-1.626	0.275
State	312	49	1	50	23.63	0.943	16.649	277.187	0.136	0.138	-1.638	0.275
Income level	312	3	1	4	2.19	0.041	0.727	0.529	0.344	0.138	0.061	0.275
Founder Gender	312	2	1	3	1.48	0.042	0.743	0.553	1.177	0.138	-0.179	0.275
Business owner	312	1	0	1	0.3	0.026	0.461	0.212	0.854	0.138	-1.279	0.275
Experience - Stakeholder	312	4	1	5	3.8446	0.04748	0.8386	0.703	-0.768	0.138	0.415	0.275
Education - Stakeholder	312	3	2	5	4.2628	0.03715	0.65628	0.431	-0.696	0.138	-0.047	0.275
Detailed Plan - Stakeholder	312	3	2	5	4.3921	0.03538	0.62498	0.391	-1.156	0.138	1.192	0.275
Direct Plea - Advocate	312	3	2	5	3.4391	0.0404	0.71354	0.509	0.249	0.138	-0.539	0.275
Collaboration - Advocate	312	4	1	5	3.9038	0.05473	0.96667	0.934	-1.203	0.138	1.155	0.275
Time Invested - Advocate	312	4	1	5	4.2286	0.04043	0.71407	0.51	-1.672	0.138	4	0.275
Personal Connection - Advocate	312	3.33	1.67	5	3.9861	0.04047	0.71488	0.511	-0.668	0.138	0.018	0.275
Features & Benefits - Enthusiast	312	4	1	5	3.8365	0.04511	0.79672	0.635	-0.628	0.138	-0.064	0.275
Innovativeness - Enthusiast	312	3.5	1.5	5	3.395	0.04304	0.76025	0.578	0.046	0.138	-0.657	0.275
Featured on Platform - Enthusiast	312	4	1	5	3.5267	0.05753	1.01613	1.033	-0.431	0.138	-0.692	0.275
Valid N (listwise)	312											

I began the regression by analyzing the new measures within each of the orientations against the against the new dependent variable of post-funding satisfaction. First, I began with the control variables by themselves and then combined with the three measures of stakeholder orientation (experience, education, detailed plan), followed by removing the three measures of stakeholder orientation and replacing them with the four measures of advocate orientation. Then,

I removed the four measures of advocate orientation and replaced them with the three measures of enthusiast orientation. I then proceeded to run a multiple regression with all of the newly transformed variables for each of the three orientations.

The first analysis for the three measures of stakeholder orientation and its relation to post-funding satisfaction yielded all significant results for each measure. Experience was found to be significant but negative (β = -.139, Sig. = .004). In terms of education the relationship was positive and significant (β = .241, Sig. = .002). Finally, the measure for stakeholder detailed plan was found to be significant and positively related to post-funding satisfaction (β = .645, Sig. = .000). The results show mixed support for hypothesis 1. Both education and detailed plan were positively related to post-funding satisfaction; however, interestingly, experience was significant but negative. These findings echo what was found in the first study. The results for the stakeholder orientation post hoc analysis are illustrated in table. 4.12.

Table 4.12 Multiple Regression Stakeholder Orientation Post hoc

	Model 1			Model 2		
	B	Sig.	VIF	B	Sig.	VIF
Post-funding Satisfaction	4.61	0.000		1.157	0.002	
Age	-0.004	0.405	1.124	-0.006	0.146	1.127
Category	0.027	0.787	1.097	-0.047	0.566	1.109
Employment status	-0.083	0.218	1.082	-0.066	0.222	1.085
Ethnicity	-0.067	0.102	1.041	-0.028	0.390	1.05
Gender	0.037	0.718	1.127	-0.001	0.995	1.142
State	-0.003	0.242	1.041	-0.002	0.416	1.043
Income level	-0.03	0.647	1.088	-0.021	0.691	1.098
Founder Gender	-0.003	0.963	1.13	0.029	0.578	1.137
Business owner	0.058	0.579	1.093	-0.017	0.835	1.1
Experience - Stakeholder				-0.139	0.004	1.231
Education - Stakeholder				0.241	0.002	1.827
Detailed Plan - Stakeholder				0.645	0.000	1.598

Next, I performed the post hoc analysis for advocate orientation. The results were consistent with the hierarchical regression that had been previously performed. In this case three of the four measures were found to be significant; however, the relationship was positive. The findings included: direct plea (β = .358, Sig. = .000); collaboration (β = .086, Sig. = .076); and time invested (β = .414, Sig. = .000). The relationship for personal connection was not significant. The results for the advocate post hoc analysis are illustrated in table 4.13.

Table 4.13 Multiple Regression Advocate Orientation Post hoc

	Model 1			Model 2		
	B	Sig.	VIF	B	Sig.	VIF
Post-funding Satisfaction	4.61	0.000		0.732	0.079	
Age	-0.004	0.405	1.124	-0.001	0.844	1.135
Category	0.027	0.787	1.097	-0.064	0.457	1.119
Employment status	-0.083	0.218	1.082	-0.088	0.121	1.088
Ethnicity	-0.067	0.102	1.041	-0.019	0.579	1.057
Gender	0.037	0.718	1.127	-0.027	0.754	1.142
State	-0.003	0.242	1.041	-0.004	0.121	1.065
Income level	-0.03	0.647	1.088	-0.037	0.502	1.091
Founder Gender	-0.003	0.963	1.13	0.018	0.742	1.135
Business owner	0.058	0.579	1.093	-0.011	0.902	1.101
Direct Plea – Advocate				0.358	0.000	1.097
Collaboration – Advocate				0.086	0.076	1.495
Time Invested – Advocate				0.414	0.000	1.34
Personal Connection – Advocate				0.089	0.194	1.637

The post hoc analysis for enthusiast orientation enthusiast was analyzed last. The results were consistent with the hierarchical regression findings. All three measures were found to be significant relationships with post-funding satisfaction. Both innovativeness (β = -.346, Sig. = .000) and featured on platform (β = -.112, Sig. = .077) were negatively related to post-funding

satisfaction confirming hypothesis 3. However, features and benefits (β = .424, Sig. = .000) was significant but positively related to post-funding satisfaction. The results for enthusiast orientation are illustrated in table 4.14.

Table 4.14 Multiple Regression Enthusiast Orientation Post hoc

	Model 1			Model 2		
	B	Sig.	VIF	B	Sig.	VIF
Post-funding Satisfaction	4.61	0.000		4.511	0	
Age	-0.004	0.405	1.124	-0.005	0.287	1.126
Category	0.027	0.787	1.097	0.041	0.67	1.1
Employment status	-0.083	0.218	1.082	-0.059	0.357	1.09
Ethnicity	-0.067	0.102	1.041	-0.063	0.101	1.043
Gender	0.037	0.718	1.127	0.062	0.516	1.144
State	-0.003	0.242	1.041	-0.003	0.259	1.051
Income level	-0.03	0.647	1.088	-0.026	0.678	1.095
Founder Gender	-0.003	0.963	1.13	-0.018	0.773	1.136
Business owner	0.058	0.579	1.093	0.124	0.209	1.115
Features & Benefits - Enthusiast				0.424	0.000	2
Innovativeness - Enthusiast				-0.346	0.000	1.752
Featured on Platform - Enthusiast				-0.112	0.077	2.206

Finally, I performed one more post hoc multiple regression, this time I included all of the transformed measures for each of the orientations. All together there are ten measures. Three for stakeholder (education, experience, detailed plan), four for advocate (direct plea, collaboration, time invested, and personal connection), and three for enthusiast orientation (features and benefits, innovativeness, featured on platform). In the final model six of the ten showed significant relationships with post-funding satisfaction. With regards to the stakeholder orientation, education had a positive significant relationship (β = .169, Sig. = .022) as well as detailed plan (β = .409, Sig. = .000), which confirms support for hypothesis 1. In this model,

experience was not found to be significant, but the relationship was still negative. With regards to advocate orientation, the same three measures were again found to be positively related to post-funding satisfaction. Direct plea (β = .182, Sig. = .001), collaboration (β = .109, Sig. = .019), and time invested (β = .17, Sig. = .021) were all significantly positively related to post-funding satisfaction echoing the findings of the hierarchical regression. Finally, with regards to enthusiast orientation, the post hoc analysis once again confirmed the support for hypothesis 3, with innovativeness (β = -.249, Sig. = .000) being significant and negatively related to post-funding satisfaction. However, in this case both features and benefits along with featured on platform were not found to be significant measures.

In summary, the post hoc analyses reinforced the findings of the hierarchical regression analysis and confirmed support for both hypothesis 1 and hypothesis 3. Moreover, they provide more robust results, which strengthen the findings in the original hierarchical regression. All three backer orientations were found to have significant relationship with post-funding success. The findings of the combined multiple regressions are illustrated in table 4.15.

Table 4.15 Multiple Regression: Stakeholder, Advocate, Enthusiast Orientation Post hoc

	Model 1			Model 2			Model 3			Model 4			Model 5		
	B	Sig.	VIF	B	Sig.	VIF	B	Sig.	VIF				B	Sig.	VIF
Post-funding Satisfaction	4.61	0.000		1.157	0.002		0.732	0.079		4.511	0		0.838	0.048	
Age	-0.004	0.405	1.124	-0.006	0.146	1.127	-0.001	0.844	1.135	-0.005	0.287	1.126	-0.004	0.245	1.149
Category	0.027	0.787	1.097	-0.047	0.566	1.109	-0.064	0.457	1.119	0.041	0.67	1.1	-0.064	0.411	1.136
Employment status	-0.083	0.218	1.082	-0.066	0.222	1.085	-0.088	0.121	1.088	-0.059	0.357	1.09	-0.061	0.23	1.099
Ethnicity	-0.067	0.102	1.041	-0.028	0.390	1.05	-0.019	0.579	1.057	-0.063	0.101	1.043	-0.016	0.61	1.061
Gender	0.037	0.718	1.127	-0.001	0.995	1.142	-0.027	0.754	1.142	0.062	0.516	1.144	-0.045	0.562	1.184
State	-0.003	0.242	1.041	-0.002	0.416	1.043	-0.004	0.121	1.065	-0.003	0.259	1.051	-0.002	0.287	1.08
Income level	-0.03	0.647	1.088	-0.021	0.691	1.098	-0.037	0.502	1.091	-0.026	0.678	1.095	-0.015	0.767	1.113
Founder Gender	-0.003	0.963	1.13	0.029	0.578	1.137	0.018	0.742	1.135	-0.018	0.773	1.136	0.028	0.565	1.151
Business owner	0.058	0.579	1.093	-0.017	0.835	1.1	-0.011	0.902	1.101	0.124	0.209	1.115	-0.022	0.785	1.141
Experience - Stakeholder				-0.139	0.004	1.231							-0.05	0.391	2.006
Education - Stakeholder				0.241	0.002	1.827							0.169	0.022	1.998
Detailed Plan - Stakeholder				0.645	0.000	1.598							0.409	0.000	2.655
Direct Plea - Advocate							0.358	0.000	1.097				0.182	0.001	1.347
Collaboration - Advocate							0.086	0.076	1.495				0.109	0.019	1.715
Time Invested - Advocate							0.414	0.000	1.34				0.17	0.021	2.348
Personal Connection - Advocate							0.089	0.194	1.637				0.083	0.216	1.951
Features & Benefits - Enthusiast										0.424	0.000	2	0.034	0.64	2.806
Innovativeness - Enthusiast										-0.346	0.000	1.752	-0.249	0.000	1.895
Featured on Platform - Enthusiast										-0.112	0.077	2.206	-0.042	0.443	2.688

4.7 Discussion

First, I argued that signals related to stakeholder orientation would have a positive impact on post-funding satisfaction. The results suggest that these backers respond to signals of the mind or those that are attributed with human capital by way of experience. The variable that was transformed to create the stakeholder measure included three statements from the final factor.

They included the perception by the backers regarding whether the project founder had a high level of industry experience, high level of experience with CF projects, and if they were smart. All of these perceptions contributed positively to the post-funding satisfaction of the backer. Consequently, the items utilized to compute the post-funding satisfaction variable included the following three items: the founder delivered the product on time; the quality met my expectations; and I would support the founder again. These items clearly measure whether the founder delivered the product on time and with the quality they claimed. Hence, as opposed to the finding in the first study that indicated an adverse reaction to human capital with regard to the ability to raise funding, in the post-funding environment these characteristics are distinctly important to ensure a backer's post-funding satisfaction. Moreover, the findings of my study further support previous studies that have found a positive relationship between human capital and entrepreneur or firm performance. For instance, in their study, Dimov & Shepherd (2005) found that education and practical experience were positively related to the successful performance of venture capital firms. Additionally, Lee (2019) found that human capital is positively related to an entrepreneur's successful venture. Consequently, this gives credence to the adage "invest in people not products" as has been stated by serial entrepreneurs such as James Caan and Barbara Corcoran of Dragons Den and Shark Tank fame. Finally, because the aforementioned traits contribute to success or are what investors focus on, it makes sense that backers would have a higher post-funding satisfaction when they focus on signals of the mind.

Fittingly, in the third hypothesis I argued that signals of the product or those that focused on the characteristics such as its features and benefits are qualities of enthusiast orientation. These backers are too focused on what the product can do for them that they ignore the presence of signals that may have helped them realize the founder was in over their head and would not be

able to meet the delivery times or quality of the product promised. Consequently, as the regression analysis showed these signals had a negative impact on a backer's post-funding satisfaction. Moreover, a look at the items in the enthusiast orientation factor included: the product could save me money; the product could save me time; and the CF platform influenced what product I picked. Interestingly, the item that measured the product being featured by the CF platform was included in the final factor model. This may suggest that being selected and/or featured on the CF platform may magnify the effect of the product features and what it can do for a backer. This finding supports previous findings of backers being motivated to provide funding to projects based on first impressions gained from the consumer benefits (Zhang & Chen 2019b), being selected as a staff pick (Li & Wang, 2019; Thies et al., 2019), or the reward itself (Wei, 2018). However, the finding also extends the literature by demonstrating that these signals may prove to be an important motivation for providing funds, but they are detrimental to the backer being satisfied with the product. This is due to the fact that those founders who exhibit strong product signals may be less likely to possess the appropriate characteristics or support that would allow them to meet their proposed delivery times and expected quality.

Finally, with regards to advocate orientation, I argued that those backers who ignored signals of the mind and product would focus on signals of the heart. These backers are more concerned with helping and supporting the founder. The items that constituted the advocate orientation factor included: the founder invested a lot of time in providing updates; the founder invested a lot of time preparing the pitch; and the founder updates were helpful. Furthermore, I suggested that backers who focused on advocate orientation would be supporting founders that were the least likely to actually come through and deliver on time or at the expected quality. The regression analysis found that the relationship between advocate orientation and post-funding

satisfaction was significant but positive rather than negative, which was contrary to my prediction. This is an interesting finding and may be attributed to the fact that previous research has identified that backers in this orientation primary motivation is altruism (Burtch et al., 2013) and being able to feel like they made a difference by contributing to a common cause or one they have a personal connection to (Bagheri et al., 2019; Boudreau et al., 2015). Moreover, they are also influenced by founders who signal they care by showing they invested time in preparing and providing updates regarding their campaign (Kunz et al., 2017; Zheng et al., 2018). Additionally, other research has found that they are more concerned with their own image enhancement and are inclined to decline the reward altogether (Andre et al., 2017; Cox et al., 2018). Taking all this into account, I would argue that backers that demonstrate advocate orientation are achieving their satisfaction at the moment they provide the funds based on their motivation of altruism, desire to help others, personal connection to a founder and declining of rewards. Thus, they are not concerned with their own post-funding satisfaction possibly because they draw their satisfaction from seeing and helping the founder reach their funding target.

The hierarchical regression analysis indicated that stakeholder orientation, enthusiast orientation, and advocate orientation all had a significant relationship in influencing the post-funding satisfaction of CF backers. While, the first two hypotheses were supported, the relationship between advocate orientation and post-funding satisfaction was significant but in the wrong direction. I argued the relationship would be negative, but in fact it turned out to be positive. In the next section, I will discuss the study's limitations.

4.8 Limitations

One of the main limitations of the study is that I did not specify a particular campaign for the backer to rate. For instance, the survey asked backers to participate in a survey about CF with the requirement that they had previously to a campaign that had met its funding target. The backers then had to think about one campaign they have contributed to and respond to the survey based on that campaign. This method did not allow for backers who have supported multiple projects that have achieved their funding goal. For example, let's say a respondent has provided funding for three different campaigns which have all successfully reached their funding goal; however, two of them were unpleasant experiences and the other was great. The survey does not distinguish between the three campaigns they supported; thus, it is impossible to know which campaign they used to rate for the survey. Perhaps a clearer set of instructions could have been included that asked participants to respond to how they felt aggregately across all of their CF experiences. Future work could request the respondent provide the link to the campaign they supported in order to analyze and include the products characteristics and how they might influence the relationships proposed. This would allow for the ability to track the platform and determine whether they are an all or nothing model or a keep it all model. This would be of interest due to the fact that there is a bit of a lesser risk for the backer in an all or nothing campaign due the fact that their pledge only gets charged once the campaign meets its goal, whereas in keep it all once a backer pledges their funds they are withdrawn from their account.

Another limitation of the study was that I did not measure the potential relationship between the backer and the founder. For example, if a backer has a direct existing relationship with the founder, does this intensify the post-funding satisfaction relationship? Additionally, on the other side of the spectrum, do backers without a direct existing relationship to the founder

have a greater amount of scrutiny and thus the post-funding satisfaction relationship is weakened as a result? Moreover, do backers with a direct existing relationship even bother paying attention to any of the signals a founder sends or is their motivation solely based on their connection? This could provide an argument for a fourth CF orientation titled direct connection or friendship orientation. Consequently, future research could investigate the dynamics of this relationship. For example, of interest would be whether founders prioritize their direct connections or those without a direct connection.

Subsequently, I ignored the funding amount the backer provided. This is similar to the direct connection relationship to the founder. The amount of funding provided by the backer clearly may have a direct effect on the post-funding satisfaction based on the value of the money placed by the backer. Accordingly, future research must explore the moderating effects of these proposed relationships as they may potentially strengthen or weaken some of the findings. Finally, there was absolutely no effect or relationship with regards to the innovativeness of the product. Moreover, none of the items utilized in the survey to measure the radicalness or innovativeness of the product made it into the final factor. This may be due to the fact that backers may not be as sophisticated enough to determine the radicalness or possibly my measure was too vague.

4.9 Conclusion

This study provided one of the very first investigations into what occurs after a founder achieves the funding goal once their CF campaign ends. While, two other studies have examined the events after a campaign closes (Roma et al., 2017; Thies et al., 2019), they ignore the

backers' perspective and only focus on follow on funding from professional investors. Consequently, the study makes various contributions to the advancement of the CF literature.

First, it is the first to directly investigate from a backer's perspective the expectations set by the founder during their campaign. As previously mentioned, the research to date has focused almost entirely on the factors that will lead to successful funding achievement for a campaign. Second, while, other studies have taken a backer perspective, none of them have attempted to incorporate a satisfaction measure for backers based on the signals provided by the founders. Consequently, the actions taken by founders during their campaign clearly have an influence on the motivations and perceptions of the backers. The study also extends the signaling theory research by indicating that certain signals can drown out the effects of others as is the case with advocate orientation.

With regards to reconciling the debate on whether CF is an economic or prosocial phenomenon, the findings provide great insight but do not appear to settle the debate. In actuality, the study indicates that CF is not a static or either-or phenomenon, but rather a dynamic one influenced by the various actors (founders, backers, platform, project) in it. It may be argued that CF has a curvilinear relationship to both being a prosocial and economic phenomenon. For example, in the pre-funding to funding stage, it is clear that focusing on CF as a prosocial phenomenon is more impactful, as evidenced in table 4.1 by studies that found prosocial behavior is attributed to funding success. Additionally, in my first study, the findings leaned towards the prosocial characteristics and had a negative effect for human capital or economic. Thus, the prosocial characteristics appear to be stronger influencers in ensuring a founder achieves the funding they seek. However, in the achieved funding to post-funding stages the impact of the prosocial aspect appears to weaken. Subsequently, during this time, the

argument that CF is an economic phenomenon is stronger as evidenced by the relationship between stakeholder orientation and post-funding satisfaction. This is contrary to my previous study that indicated a negative impact from economic characteristics such as those associated with the mind and product. Moreover, this study also demonstrated that the product factors attributed in the enthusiast orientation had a negative effect on post-funding satisfaction.

In summary, this study significantly contributes to the current CF literature by exploring a nearly completely ignored area of CF, which is what happens after a founder gets the money. Furthermore, in concert with the first study, it provides valuable insight to the two sides of CF. First, by focusing on the founder, it shows what characteristics help them successfully reach their funding goal. Second, by focusing on the backer, it opens the door to future research on what happens after the founder gets the money and how it affects the backers. Finally, the study is not without its limitations; however, clear areas of future research are available for further investigations as mentioned in the discussion section. It is my hope that this dissertation provides inspiration for further inquiry into what occurs in the post-funding or repeat-funding in the CF environment.

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BIOGRAPHICAL SKETCH

Dr. Ruben Ceballos currently serves as the MBA Director and Assistant Professor at Angelo State University in San Angelo, TX. His research focuses on strategic entrepreneurship with an emphasis in technology commercialization. Born and raised in Brownsville, TX he is a graduate of Saint Joseph Academy. Dr. Ceballos earned his PhD from the University of Texas Rio Grande Valley in August 2020. He previously earned his BBA with a major in Tourism Management in May 2001 and his MBA with a major concentration in Marketing Management in August 2003 from the University of Texas San Antonio. The son of Dr. Ruben Ceballos Karam and Maria del Carmen Garcia de Ceballos and sibling to Yojainna and Yammile. He is married to Dr. Laura Ceballos OBGYN and together they are parents of two wonderful boys Marcelo and Rafael.

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