When Firms are Potemkin Villages: Formal Organizations and the Benefits of Crowdfunding

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Abstract:

Scholars have long been interested in the reasons why firms exist, arguing that they have efficiency and productivity benefits over other approaches to organizing. We examine why entrepreneurs often form firms, since entrepreneurial ventures are not large enough to accrue many of the expected efficiency benefits from formality. Instead, we argue that there are reasons besides efficiency (and regulation) that cause firms to exist. We suggest that an unrecognized implication of new institutional and ecological theory leads entrepreneurs to establish firms as a legitimating agent, and to allow them to act in industries with existing firm populations. We test this theory by examining a unique sample of crowd-funded startup companies, to empirically identify the advantages of formal versus informal organizations with different types of third party entities. We find that adopting the mantle of a formal organization helps entrepreneurs in contexts where they operate with other formal organizations, but not in interactions with other types of resource holders. We also demonstrate that crowdfunding may have substantial benefits for entrepreneurs beyond fundraising.

The question of why firms exist has been of interest to academics since at least the time of Coase's 1937 treatise on "The Nature of the Firm." Examining large corporations, scholars have identified a number of advantages that formal organizations might have over less formal markets and exchanges, including decreased opportunism hazards in the presence 'specific' investments (Williamson 1985); superior co-ordination and information processing structures (Thompson 1967; Galbraith 1977; Grant 1996); and productivity gains stemming from deploying tacit capabilities and routines (Nelson and Winter 1982; Teece et al. 1997). While these efficiency arguments serve to explain why large firms exist, they only partially address the existence of another type of firm - the entrepreneurial organization. Though entrepreneurship is the ultimately the font of new organizations, the young, small ventures that entrepreneurs produce might be expected to act very differently than more traditional firms - though both categories are considered firms. Indeed, most entrepreneurial ventures start with few people, and often remain at that size for considerable periods of time, if they grow at all (Hurst & Pugsley, 2010). At this small scale, the efficiency arguments for firm formation are not sufficient, suggesting that firms may serve other purposes. We suggest that a complimentary reason can be found using an unrecognized implication of new institutional (DiMaggio and Powell 1983) and ecological (Hannan and Freeman 1984) theory, causing firms to act as a legitimating agent, and to allow them to act in industries with existing firm populations. We test this theory by examining a unique sample of unexpectedly successful crowd-funded startup companies, to empirically identify the advantages of formal versus informal organizations with different types of third party entities.

This perspective on why firms exist compliments traditional views of the value of firms. From early work by Coase (1937) on firms and Weber (1946) on rational bureaucracy through a wide variety of other scholars (Williamson 1985; Thompson 1967; Galbraith 1977; Nelson and Winter 1982), formal organizations have been seen to offer substantial benefits in terms of transaction costs, routinization, and other factors. While the exact organizational mechanisms that cause the firm's performance to be greater than a market-based approach to organizing differ, in all of these perspectives, efficiency advantages are assumed to be at the root of formal organizations. For example, Blau and Scott (1962) and Thompson (1967) have argued that firms offer special efficiencies in coordination and control, while economists such as Coase (1937) and Williamson (1985) have postulated that organizations arise when individuals would face too much uncertainty and opportunism to use free market contracts. Even with these differences among scholars, the common thread among all of these approaches is that they view formal organizations as something that is explained by the benefits of the routines, structure, and knowledge provided by being part of a firm.

While the theoretic focus has been on issues of efficiency, institutional theory suggests that there may be other benefits. Firms can instead be socially necessary to facilitate individual action, and they do so in a way that often makes their performance no more than the sum of their individual members. While entrepreneurship scholars have observed some benefits of formally organizing (Delmar & Shane, 2004), the nature of this benefit has been under-theorized (Tornikoski & Newbert, 2007). We argue that many organizations exist due to an implication of the foundational theories of both new institutional (DiMaggio and Powell 1983) and ecological thinking (Hannan and Freeman 1984) on the forces that underlie the existence of firms. Those

theories imply that while individual entrepreneurs may not need the benefits of formal firms to succeed, they may still need to wear the garb of organizations in order to do business with other organizations. New firms therefore, are created in a self-perpetuating cycle – they arise not in order to maximize functionality, but rather as a response to an environment which demands their creation in order for a business venture to be taken seriously. They are for appearances only, each built to appear as organizations that are more than the sum of their parts, even when they are not.

The next section of the paper will further develop the theory that underlies the creation of firms in environments that depend more on individual, rather than firm-level, contributions to performance.

THEORY: CONFORMING TO DIFFERENTIATE

A critical aspect of entrepreneurial success is obtaining the resources needed for growth from third parties; whether those be customers, capital, employees, or any other necessary thing (Aldrich & Fiol, 1994; Chatterji, 2008; Granovetter, 1985). With that context, let us consider how an entrepreneur with an idea for a new product innovation goes about entering a market. To make the matter concrete, assume that the product can be easily modularized and that all of the production and development can be allocated via contract with few coordination demands and minimal threat of opportunism. In short, assume that the product would be amenable to development and sale through free agents. Note that whether founding a firm or not, the entrepreneur relies on a team of other individuals to accomplish his or her goal; the alternatives are simply either to employ those individuals inside an organization or to contract with free agents

as needed to acquire needed expertise and labor. If, in this hypothetical case, economic efficiency was all that mattered, contracting with free agents would make logical sense, at it would avoid the additional costs and administrative overhead associated with founding a firm. And yet, if this entrepreneur is starting his project in an industry populated by other firms, in almost all cases our intuition would be the opposite – we would expect to see the entrepreneur operate through a firm, rather than as an individual. This intuition finds a theoretical foundation in both the new institutional and ecological traditions.

Before examining these theoretical approaches, it is worth noting that entrepreneurship research demonstrates that the road to organizational formation can be long (Katz and Gartner 1988) and that few nascent entrepreneurs actually succeed in creating firms (Carter, Gartner, and Reynolds 1996). Additionally, some scholars challenge whether organizational formation is an appropriate way to define entrepreneurship (Shane and Venkataraman 2000). Yet organizational founding has been observed to be a key goal of entrepreneurs (Aldrich 1999), and it is the fact that successful entrepreneurs found organizations that is of importance for our discussion, not the fact that many fail in the process.

The first reason an individual might create an organization even when it does not contribute to efficiency is the most obvious: organizations have a legal standing that makes them advantageous for managing risk. This explanation is lacking, however, since if individuals only formed organizations for legal reasons, we would expect that we would see the creation of organizations as legal entities only, such as single-member limited liability corporations that can effectively shield individuals from tax and liability concerns without the additional overhead of

establishing a formal organization (Jones Jr 1999). Yet single-member corporations are not the dominant organizational form for most industries. This is because the existence of a firm as a pure legal entity does not offer the same level of comfort to stakeholders – be they employees, lenders, investors, suppliers, or customers – as a formal organization. These outside entities would hesitate to place trust in mere legal fiction, because their concerns are neither legal nor even strictly economic but are instead based on establishing that their potential partners are going to conform to the roles expected of firms, including reliability and persistence. The same expectation of reliability and persistence may be important to the individuals who would choose to work on a project; they may only be comfortable working as employees within a firm for the perceived stability of firms, as well as the benefits that firms can acquire from third parties, such as health care.

This expectation, then, highlights the second reason that individuals would form firms: firms are a requirement for acceptance in a world of organizations. The importance of this fact on the evolution of industries is a consequence of a number of literatures, but is demonstrated most clearly in the tradition of new institutionalism. Generally, new institutionalism has tended to concentrate on understanding why so many firms look the same across industries (DiMaggio and Powell 1983). The theory states that isomorphism is achieved through outside pressure, response to uncertainty, and environmental factors. The resulting research tradition has demonstrated the existence of isomorphism and diffusion of forms across industries (Burns and Wholey 1993; Fligstein 1991). However, just as new institutionalism predicts isomorphism in response to environmental pressures and uncertainty, so too, would it help explain why we find so few industries in which individuals co-exist with, or even supplant, firms. When new entrants attempt

to enter an industry, they are subject to these institutional pressures and act to create isomorphic firms in response.

The new institutional tradition, however, has focused on populations of firms, rather than the ways in which individual firms might act in the face of institutional pressures. A more workable framework based on similar premises, but which encompasses firm-level action, can be found in Hannan and Freeman's (1984) challenge of the idea that market efficiency is the sole reason that firms are organized. Hannan and Freeman suggest that organizations offer two advantages over individuals: reliability and accountability. Organizations are reliable precisely because they routinize firm action, smoothing out individual differences and ensuring that an organization will have lower performance variance than a randomly drawn free agent. A firm that appears to be reliable to outside observers would also appear to be more than the sum of its individual parts. That is because reliable firms embed their capabilities in routines, rather than people, because routines endure in an organization while individuals do not. Toyota's routines allow them to efficiently produce quality cars in plants ranging from Tennessee to Tokyo, despite different and changing workforces.

Similarly, organizations are accountable because they can rationally explain their actions, making consistent arguments using appropriate rules and procedures. For example, firms can demonstrate to employees that they offer predictable career paths, to investors that they have formal management processes for money being spent, and to governments that they are appropriately certified to do business. Again, this leads to the creation of firm-level routines that

are productive when they are adapted to the environment, but may not be productive when environments change.

Extending Hannan and Freeman's reasoning provides a way of understanding why firms may exist even when they offer no advantages to, or perhaps even detract from, their individual entrepreneurs. By being a part of the category of firms, these individuals achieve the status of being reliable and accountable, fitting into the established category that is critical in order to be taken seriously (Zuckerman 1999). This may involve individuals invoking the concept of an organization, even when an organization does not exist. One entrepreneur interviewed by the authors described this process as "pushing the line between what is real and what you want to make real," as he explained how he implied the existence of entire departments to potential partners, without directly claiming that the then-imaginary groups had been established. A second company founder described a case in which a company (later sold for \$620 million) hired out-of-work actors to play the part of a project team during an office visit by business partners in a successful effort to demonstrate that the firm was properly organized and legitimate. While this might be an extreme example of using a firm as a mere shell, the desire to do what was needed to appear reliable and accountable was echoed by many firm founders.

An emerging literature on how entrepreneurs actively seek to build legitimacy demonstrates that entrepreneurs are very conscious of their need to establish themselves as reliable and accountable (Zimmerman and Zeitz 2002). For example, work by Zott and Huy (2007) explores how entrepreneurs use symbolic actions (such as having an office in an impressive building) to prove legitimacy to stakeholders, and therefore gain access to more resources. A

series of studies by Delmar and Shane (2003, 2004) found that business planning and the establishment of formal entities lowered the chance of disbanding for a sample of Swedish firms, which they argued was due to legitimating effects. Delmar and Shane, however, attribute those legitimizing effects to firms wanting to avoid appearing as violating legal norms. While the study of entrepreneurial legitimacy is still "in its infancy" (Zimmerman and Zeitz 2002:414), it suggests that successful firm founders actively seek methods to make their efforts appear legitimate, even if those efforts themselves do not directly relate to the main thrust of their business effort.

The pressure to create firms even when they are not adding to the productive capacity of the constituent individuals can be seen from the perspective of outside institutions, as well as entrepreneurs. First, firms in a particular market may be most comfortable dealing with other firms, whether as customers or as service providers. Indeed, other players in a market may entirely lack the capabilities required to deal with non-firm entities. One example of this is the fact that most standard application and registration forms for everything from conferences to requests for proposal require a title and a company name in order to be processed, putting those who are not part of a formal organization at a disadvantage. A related case is that of government contractors, which must have a variety of features available only to organizations; such as a unique Dun and Bradstreet number, a special code that identifies companies that do business with the government, and a Central Contractor Registration listing that is required by law for all potential contractors. Beyond these practical considerations is the fact that justification to third-parties will present an ongoing challenge to non-firms: consider, for example, that an entrepreneur who attempts to sell products without a business card featuring a company name will face real skepticism about the possibility of a long-term business relationship.

At the same time, the entrepreneurs themselves often face uncertainty as to the best way to enter the industry in a productive way. Unlike the idealized world of Williamson, there is no clear "market" to join in most cases, simply a universe of firms with which an individual must do business. Furthermore, individuals are unlikely to care exactly about how they choose to enter a market, whether by starting a firm or by acting as a free agent, since organizing is secondary to the goal of actually making a profit from their business concepts. Individuals may thus find themselves without clear examples of organizational forms, except for those that they themselves have experienced or seen enacted elsewhere (Aldrich 1999). Thus, an emulative response from individuals may recreate existing organizational forms. As another entrepreneur explained to the author when asked why he did not start a freelance-based operation:

We never really saw it as an option. That was rarely seen as a model of success. We all pattern ourselves, we see something and duplicate it. There wasn't a whole lot of that thing going on. Anyone who was working out of their house was seen as a chickenshit operation, not to be taken seriously. What kind of multimillion dollar contract are you going to get working out of your basement?

The requirements to appear both accountable and reliable pressures entrepreneurs to design an organization to be isomorphic to its market from the very beginning, creating a false face that is a mirror image of existing, legitimized forms. Additionally, since an organization that appears as a mere shell will not satisfy these requirements, the founders will have the incentive to "cover their tracks" by ensuring the firm they create will appear to be a functioning organization, rather than a simple collection of individuals. Creating this organization is likely not the primary goal of entrepreneurs, rather it is a means to an end. Entrepreneurs need to organize in order to gain access to the resources they need to proceed. They will conform to the

requirements of an organization so that they can differentiate themselves in other ways--the equivalent of wearing a suit to a job interview (Phillips and Zuckerman 2007). The organization is a means, not an end itself. Firms, with their associated costs in entrepreneurial time and administrative overhead, thus act as middleman in each transaction, laundering the identity of individual members, in return for a portion of the resources that would otherwise go to the individual. They act as Potemkin Villages rather than real firms, set up to give the appearance of a real organization in the same way that General Grigorii Potemkin set up the pasteboard facades of towns in newly conquered lands to give the visiting Catherine the Great the illusion of a thriving local economy.

HYPOTHESES

If, as we have argued, formal organizations allow entrepreneurs to strategically conform in order to behave as members of the world of organizations, we would expect that it in markets where organizations are the norm, and where the appearance of reliability and accountability are key, that we would see the benefits of formality. In the context of entrepreneurship, there are two common types of interactions where founders interact with third parties that expect to build long-term relationships. The first of these is building business partnerships with other organizations. Whether alliances, distribution agreements, partnerships, or other inter-firm relationships, these interactions are set firmly in the world of organizations.

A second context is that of finding and hiring employees. Potential employees have the expectation of working for a "real company," where payroll is regular and there is the possibility for future gain. Again, it is advantageous to have the garb of a formal organization in order to provide the assumed assurance of reliability and accountability. Note, however, that formal

organizations are not required *ex ante* for entrepreneurs to achieve either third-party relationships or employees. Employees can and do work as independent contractors on a regular basis. Similarly, business partnerships can cover all manner of potential arrangements, formal or not, and conducted with individuals or organizations. Thus:

H1: Formal organizations are better able to secure human capital than informal organizations

H2: Formal organizations are better able to achieve partnerships or alliances with third parties than informal organizations

Even if these two hypotheses were supported, however, that would not allow us to differentiate our theorized reason for which entrepreneurs choose to formally organize (the assumed accountability and reliability of firms), with an alternative hypothesis, that formal organizations generally are better at obtaining resources than informal ones. In order to address this concern, we need to contrast these resources from "the world of firms" with resources from third parties that do not require long term accountability and reliability. For entrepreneurial ventures, two such parties are the press and individual customers. While outside press can be useful to entrepreneurial success, there is no reason for a journalist to desire accountability and reliability from an entrepreneur. Indeed, anonymous corporations are often less interesting to read about than individual founders — witness the difference between coverage of Apple versus that of Steve Jobs. Thus, we would expect little benefit from formal organizations in terms of press.

H3: Formal organizations do not benefit more than informal organizations in achieving press attention.

Similarly, we argue that in the context of relatively small one-time transactions (as opposed to ongoing relationships), formal organizations offer little benefit in terms of building relationships with individual customers. This is because customers express an interest in the good or service being offered by the entrepreneur, rather than the entity offering the service. Whether the entrepreneur takes on the trappings of a formal organization or not, formality is not likely to be a large part of the reason why customers engage with a startup.

H4: Formal organizations do not benefit more than informal organizations in engaging customers.

EMPIRICAL APPROACH

STUDY CONTEXT

In order to test these hypotheses, we needed a context in which formal and informal organizations were given known initial resource endowments, and then allowed to use that endowment to achieve outcomes both in the world of firms (outside capital, employees) and outside it (customers, press attention). Generally, it has been hard to observe early stage organizations at all, let alone ones where formal and informal organizations coexist. The unique context of crowdfunding, however, provides just such an opportunity.

Crowdfunding refers to the efforts by entrepreneurial individuals and groups – cultural, social, and for-profit – to fund their ventures by drawing on relatively small contributions from a relatively large number of individuals using the internet, without standard financial intermediaries (Mollick, 2014). For this study, our setting is Kickstarter – the largest reward-

based crowdfunding platform in the world. By April 2012, Kickstarter had raised more than \$200 million for 20,000 projects, or about 44 percent of those that sought financing on the site (Wortham 2012). Further, Kickstarter has served as an important launching ground for more traditional entrepreneurial ventures. According to industry experts, many of the most important projects in consumer electronics as of 2013 are funded by crowdfunding, including novel 3-D printers, electronic watches, video game consoles, and computer hardware (Jeffries, 2013). Further, some of the most successful crowdfunded projects were turned down by venture capitalists, before successfully raising funding from sites such as Kickstarter (Jeffries, 2013). Crowdfunding is likely to continue to evolve, but is viewed as an important and viable source for raising funds for innovative technology startups (Mollick, 2014). Therefore we view it as a useful context in which to consider entrepreneurial action.

To use Kickstarter, an entrepreneur (called "creator" on Kickstarter) creates a webpage for the project on the platform explaining the purpose of the project and the specific deliverables that they aim to produce with the contributed funds. Along with an end date for the project funding cycle, the creator also indicates the funding goal of the project, i.e., the amount of money they require to execute the project as specified. When a potential donor (called "backer" on Kickstarter) visits an active project's webpage, they are presented with all the project information initially posted by the creator. In order to contribute, individuals must join the *Kickstarter* community (at no cost) and can pledge funds to any project using a credit card (via Amazon). Projects continue to raise funds until their deadline. If a project fails to reach its stated goal by the deadline, the project creator receives none of the funds pledged. However, once a project has reached its funding goal, it can continue to receive contributions until its deadline. As a result, funded projects

can exceed their original funding goal. Individuals contributing to a project do not receive equity in the project in return for their funds. Specifically, backers do not receive any financial incentives, returns, or repayment in exchange for their contributions. Instead, project creators typically offer more modest "rewards" to contributors which vary by the level of contribution. The focus of the present study is on projects that seek funding for the development of a product. In such cases, project rewards typically represent producer pre-orders at discounted rates.

SAMPLE AND DATA COLLECTION

We chose a sample frame of Kickstarter projects that were most similar to those of traditional venture-backed entrepreneurial firms. Specifically, we looked at successful projects between 2009 and 2012 in the Technology, Design, and Games categories with goals of at least \$5,000 that had committed to delivering products to customers. These categories together represent 47 of the top 50 projects raising money on Kickstarter through 2013.

Of the 592 successful projects, we received responses from 270 of them (response rate of 45.6%). After accounting for incomplete and duplicate entries, we ended up with usable data from 187 successful projects (31.6% of the original sampling frame), although many partially complete surveys were usable for certain parts of the study. Of the 1508 unsuccessful product-based projects, we sent survey requests to a random sample of 492 of them. Of these 492 unsuccessful projects, we received 135 responses (27.4% of the original sampling frame). After removing duplicate and incomplete responses, we ultimately obtained complete data for 86 unsuccessful projects (17.5%). Thus, our final sample consists of 273 of successful and unsuccessful projects (although certain models may permit us to use a few more project responses). Our response rates are in line with similar studies in the literature that have used web-based surveys (see Kriauciunas,

Parmigiani, and Rivera-Santos 2011, for a comprehensive review of response rates). For each of our successful and unsuccessful subsamples, we conducted univariate tests to examine differences between the projects in our final sample and those projects without responses. These tests reveal no difference in the size of the goal, the level of funding success, the likelihood of outside endorsements, whether the project was a featured Kickstarter project, and the duration of the project. Overall there appears to be little evidence of respondent bias in our sample.

VARIABLES

For this study, we observe organizations after they achieved the funding required for their product. Thus, all projects have been given a similar opportunity and initial resource endowment from their successful crowdfunding campaign. We are interested in observing how formal or informal status changes the way that organizations capture additional resources from other sources, and how they ultimately succeed.

Dependent Variables

Our outcomes of interest represent several forms of ex-post campaign benefits. They measure the extent to which the organization received benefits from the Kickstarter campaign other than any funds raised. We have tracked four specific ex-post benefits, all of which were measured using a 4-point Likert scale ranging from 1 ('None') to 4 ('A Lot'). First, we examine *Find Employees* — the degree to which the campaign helped organizations "find and/or hire employees." Our second dependent variable is *Press Attention*, a measure of the extent to which the campaign helped "bring press attention to my project." *Engage Customers*, measures whether the campaign helped "develop a customer base from those who contributed." Our final outcome of interest, *Business Partners*, represents the extent to which the crowdfunding campaign helped

creators "find business partners or allies." Means and standard deviations are reported in Table 1.

Explanatory Variables

We are interested in the effects of two explanatory variables in particular. Our first key variable is the project's original fundraising performance on *Kickstarter*. We measure this by calculating the total funds raised by the project as a percent of its original goal (% *Funded*). Due to the highly skewed nature of this variable, we log-transform it before we include it in our empirical models. Our second explanatory variable is an indicator for whether the organization that launched the campaign was formally established, or, as phrased in the survey, "a formal organization (an incorporated company, partnership, or nonprofit)." Examples of informal organizations were "a group of artists, friends or hobbyists" or "a lone individual" who did not incorporate. We measured formality at the time of the campaign. *Formal*, takes the value 1 if the entity that launched the project was a formal organization (44.7% of projects met this criteria) and 0, otherwise.

Control Variables

We also wanted to control for an important issue associated with formality. First, we wanted to ensure that we controlled for whether the organization was created for the campaign, or was pre-existing. We measure that using the variable *Established Prior to Campaign* (34% of formal organizations and 32% of informal ones were created for the campaign).

We also include binary controls for the overall objective of the project i.e., to establish a new ongoing business (*Objective: New Ongoing Business*) or a new product from an existing operation (*Objective: New Product*). The omitted reference objective is a one-time project.

We account for several non-exclusive reasons why the crowdfunding campaign was pursued to begin with (through indicator variables): the project could not have been funded without raising the goal (*Campaign Reason: Could Not Be Funded*); as a means to market the project (*Campaign Reason: Marketing*); and as a way to connect directly with a community of supporters (*Campaign Reason: Community*). Furthermore, we indicate whether the project creators previously sought funding from several sources before the campaign: the creators themselves (*Sought Prior Funds: Creators*); from family and friends (*Sought Prior Funds: Family & Friends*); or an external company (*Sought Prior Funds: External Companies*).

We also control for the number of project founders (*Number of Founders*) and the change in the number of employees from before the project, to its current state (*Employee Growth*). Finally, we control for several project-level features of the Kickstarter campaign including its goal, percent of goal raised, category, duration, year of launch, proof of next steps, and whether the project was featured on Kickstarter's homepage (see Mollick, 2014).

[Table 1 approximately here]

EMPIRICAL APPROACH

Though we control for many strategic factors and our testing (reported later) does not find a significant difference between formal and informal firms in terms of their success in fundraising, we would still be concerned that the difference in firm formality might represent a difference in startup strategy. In order to mitigate these potential endogenity issues, we start with a factor exogenous to intended strategy: the amount that a firm raised out of its goal. All founders in our study would expect to meet their goal, but the degree to which they succeed or fail to do so is due to backer interest, and is only revealed as the campaign progresses. Both failures and runaway

hits cannot be anticipated in advance. At the same time, the degree to which firms succeed or fail in raising or exceeding their goals is a strong indicator of actual market interest in their product, and (as our analysis shows) one of the most critical factors in the ability to gain long-term non-financial benefits from a crowdfunding campaign. We therefore look at the degree to which formality increases or decreases the benefits that come from the degree of funding achieved.

Due to the ordinal nature of our ex-post outcomes of interest, we model *Find Employees, Press Attention, Engage Customers*, and *Business Partners* using an ordinal logit specification with robust standard errors. In order to test the moderating effect of *Formal* status on the relationship between *% Funded* and our outcomes of interest, we cannot evaluate an interaction term in an ordinal logit. As is well documented, interaction terms in non-linear models cannot be directly interpreted, and both the sign and significance of the interaction term coefficient can be very misleading (Ai and Norton 2003). As a result, we assess moderating effects by computing the marginal effects of *% Funded* for *Formal* = 0 and Formal = 1, for each value of our ordinal outcome. As an additional robustness test, we re-run our analyses using linear OLS models to confirm our results.

RESULTS

[Table 2 approximately here]

The results of the primary analyses of ex-post campaign benefits are tabulated in Table 2. Model (1) displays the results of the ordinal logit where we model *Find Employees*. We first observe, as expected, that *Log* (% *Funded*) has a positive coefficient and is significant at the 0.1% level. As a result, we have evidence that fundraising success on crowdfunding platforms improves

the ability of project creators to find and secure employees for their operations. This positive effect of campaign performance witnessed when we model *Press Attention, Engage Customers*, and *Business Partners* in Models (2), (3) and (4), respectively. As a result, we find that a campaign's performance on Kickstarter has a significant effect on the creator's ability to find employees, seek press attention, build a customer base, and secure new business alliances. When we compare the coefficient of *Log (% Funded)* across models in Table 2, we find that it is larger for the outcomes *Press Attention* and *Engage Customers* compared to *Find Employees* and *Business Partners* at a statistically significant level (p-value < 0.01). Therefore, it appears that campaign performance influences press attention and customer base to a greater extent than it does finding employees and new business partners.

Given evidence of our initial assumption, we now turn to examine the moderating effect of *Formal* on the effect of *Log* (% *Funded*). As a noted earlier, the sign and significance of the interaction term (between *Formal* and *Log* (% *Funded*)) cannot be interpreted directly. As a result, we suppress a table showing the results of ordinal logits with this interaction term included in the model. Instead, we compute the marginal effects of % *Funded* for *Formal* = 0 and Formal = 1, for each value of our ordinal outcome and tabulate the results.

[Table 3 approximately here]

[Figure 1 approximately here]

Table 3 displays the marginal effect of *Log* (% *Funded*) on the probability of each value of *Find Employees* separately for formal groups and informal groups. We observe that in the case of informal groups (Formal = 0), campaign performance does not appear to have a significant effect on the probability of any level of *Find Employees* occurring. However, in the case of formal groups,

we observe that funding success is negatively related to the probability of deriving no employee benefits whatsoever (*Find Employees* = 1). The marginal effect of *Log* (% *Funded*) is positive for higher values of *Find Employees*. This indicates that greater campaign performance is more likely result in higher employee benefits accruing to the group. In the last column of Table 3, we test whether the difference in marginal effects between the formal and informal groups are statistically significant. We find that *Log* (% *Funded*) has a larger marginal effect for formal groups than informal ones in predicting higher levels of *Find Employees*. As a result, we conclude that the formal status of the group has a positive moderating effect on the relationship between campaign performance and finding new employees, as predicted in H1 (see Figure 1 for a graph depicting this).

[Table 4 approximately here]

[Figure 2 approximately here]

Table 4 displays the marginal effect of *Log (% Funded)* on the probability of each value of *Business Partners*, for formal groups and informal groups. The probability that a high value (3 and 4) of *Business Partners* occurs is positively related to prior campaign performance. We observe that the marginal effect of *Log (% Funded)* is positive and significant for both formal and informal groups in predicting higher levels of ex-post business partnerships. Furthermore, these marginal effects are higher for formal groups than informal ones. The difference is marginally significant at the 10% level when *Business Partners* = 3, but it is significant at the 5% level when we are concerned with the likelihood of the highest level of *Business Partners*. The results of Table 4 support a consistent story – that as we consider higher levels of business partnerships, the effect

of campaign performance is greater for formal groups than informal ones. Therefore, the formal status of the group has a positive moderating effect on the relationship between campaign performance and securing business alliances (see Figure 2), as hypothesized in H2.

[Table 5 approximately here]

[Figure 3 approximately here]

We now explore the moderating effect of *Formal* on the effect of *Log* (% *Funded*) on *Press*Attention. Looking at Table 5, we see that for lower values of *Press Attention*, *Log* (% *Funded*) has a negative and significant marginal effect. This means that higher campaign performance is less likely to result in minimal press coverage. Consistent with this, we see that *Log* (% *Funded*) has a positive effect on the probability that the product receives very high levels of press attention (*Press Attention* = 4). However, for the most part (except when *Press Attention* = 2), the difference in marginal effects between formal and informal groups is insignificant. As a result, there is no consistent evidence that *Formal* has a moderating effect on *Log* (% *Funded*) when it concerns *Press Attention*, as predicted in H3.

[Table 6 approximately here]

[Figure 4 approximately here]

We finally consider the effect of campaign performance on the extent to which the customer base is engaged with the project and product. In Table 6, we again see that for lower values of our outcome (*Engage Customers*), *Log (% Funded)* has a negative effect, while it is more positive for higher values of the outcome. More importantly, we find that the marginal effect of

Log (% Funded) for formal groups to be significantly lower than that for informal groups when Engage Customers = 3. However, we find the reverse when we examine the probability that Engage Customers = 4. The marginal effect of Log (% Funded) for formal groups is significantly greater than that for informal groups for the highest outcome. This reversal in result over the higher values of the dependent variable indicates that a clear trend is not available in this case. As a result, the evidence does not support a positive moderating effect of Formal in the case of this outcome, again as predicted in H4.

ROBUSTNESS TESTS

One concern regarding our analysis is that formal status may be significantly correlated with fundraising outcomes. If formal groups systematically raise more funds than informal ones, it would raise endogeneity concerns regarding our analysis of moderating effects. In Table 7, we display the results of a linear OLS regression where we model fundraising performance (*Log (% Funded)*). We see that *Formal* is not significant at the 5% level. Consequently, formal groups do not raise significantly more funds that informal groups.

Another concern regarding our approach may be the method we used to test for moderating effects. While computing marginal effects are recommended to overcome difficulties with interaction terms in non-linear models (Ai and Norton 2003); we also display the results of a linear OLS regression, where we treat our ordinal outcomes as continuous variables. In the case of linear regression, interaction terms can be directly interpreted. Table 8 displays the results of these models. We observe that Log (% Funded) X Formal has a positive and significant coefficient when the outcomes are *Find Employees* and *Business Partners*. Consequently, the results of the linear regression support our earlier evidence of moderating effects.

DISCUSSION

Our findings suggest that, as predicted, new ventures that are formal organizations have some advantages over informal organizations, but that these benefits are not general to all firm activities, and accrue when new ventures are operating in a context of other organizations. Formal organizations are better able to access fundraising and human capital, but do not have the same edge when interacting with customers and the press. The fact that formal organizations are more efficient in some of these areas, but not all of them, supports our theory-building that formality serves as a legitimating signal of reliability and accountability, rather than a pure efficiency purpose alone.

The fact that some sets of firms are effectively Potemkin Villages – less about efficiency than about the appearance of efficiency – serves to challenge a basic assumption about the natures of firms: that the firms we observe in a market represent an organizationally efficient response to the economic conditions of the market. In contrast, these firms may, instead, be created to imitate other firms. Thus, to return to Williamson's (1985) continuum of firms and markets, the fact that the sequence is thick in the tails may have more to do with institutional pressures than efficiency. This sort of pressure is acknowledged by firm founders, who understand the fact that the act of having a firm itself is a critical success factor, even if a small group of individuals is responsible for much of the work. Further, some of these firms would persist long after the individuals who created the firm as a cover for individual action leave or change roles. This is because over the early life of the firm, it acquires the reputation for the performance of its

individual members, making the firm appear both accountable and reliable, even after the original individuals have left. Additionally, the organization becomes institutionalized itself, acquiring a character and methods of its own (Selznick 1996), just as the Walt Disney Company became its own organization, persisting long after Walt Disney himself was dead. We argue that this implies that in any given industry we would expect to see that firms are more heterogeneous than is currently assumed, including a mix of firms effectively hiding individual contributions, firms started as covers for individual action that have become functional themselves, and firms that indeed operate as more than the sum of their parts. This means that the degree to which performance is embedded in the routines of the firm or in the abilities of individuals will vary greatly, both within industries and between them. There is certain to be a sliding scale, where some industries are indeed dominated entirely by firms that are built for efficiency (perhaps in capital intensive industries such as auto manufacturing) and others with many younger firms that act primarily to hide the role of individuals while giving them the cloak of reliability and accountability.

If formal organization is not required for coordination, it is still possible that individuals need to be part of firms for reasons unrelated to efficiency. The analogy would be similar to that of a baseball team, where the way that the team is organized is unlikely to in any way add to the performance of individual players. Yet, even the best player would not be able to operate on his own, since the competition itself is team-based. Teams exist not because team organization matters, but because that is the way the game is played. In the same way, it may be that firms are required for any one of a number of mundane reasons, from acquiring healthcare to providing a feeling of stability to individual employees. But the fact that individuals might need to be part of a firm to get these benefits does not mean that firms themselves are relevant to efficiency or

performance. Instead, it is the underlying assumption that firms provide reliability and accountability over individuals that makes them important in the eyes of third parties. To be clear, the fact that firms do not add to performance does not mean that every employee could succeed as a free agent. Many industries might work like baseball, where if individuals want to participate, they need to be part of an organization for underlying reasons that have nothing to do with performance.

There are a number of limitations to this study. First, our population of crowdfunded organizations may represent a different context than more traditional startup firms. To mitigate this, we selected larger projects in categories that are traditionally amenable to startups for our sample. Additionally, our survey provides some comfort that crowdfunded firms evolve into more traditional organizations 90.6% of the crowdfunded projects we surveyed did turn into ongoing businesses. Secondly, we rely on self-reported data in terms of benefits achieved through crowdfunding campaigns. However, this data matched with the information learned from extensive interviews with project founders, and there is little reason to think that retrospective bias would affect only one set of organizations and not another.

CONCLUSIONS

We argued that, as a consequence of the need to prove reliability and accountability, firms may simply serve as Potemkin villages, designed to give the appearance of conformity on things that do not ultimately matter to efficiency (Phillips and Zuckerman 2007), rather than to fulfill a specific organizational function. The fact that these organizations are primarily designed to mediate between individuals and the industry in which they are embedded has significance

beyond just theories of the firm. As Stinchcombe (1965) showed, firms are shaped by the initial conditions of founding, and these conditions can have effects that last the length of the organizations (Hannan, Burton, and Baron 2002).

The implications of populations of firms acting as Potemkin Villages requires additional study focusing on the long-term differences between firms that act as cover for individual founders and those that function more as efficient organizations. Future research will also help in understanding the spectrum of firm types within different industries, and how these types might change as the industry evolves. Scholars who examine the role of firms within industries should take into account that even though something looks like an efficient firm and is built like an efficient firm, it may not be an efficient firm after all, but rather an organization created in response to pressures to conform to a world where individuals are not viewed as reliable or accountable enough to operate independently.

Finally, this study is also the first to look at the benefits of crowdfunding beyond initial raising of funds. It identifies the factors that entrepreneurs, managers, and policymakers may be able to manipulate in order to further improve the long-term benefits of crowdfunding. Our results suggest that crowdfunding provides resources that support more traditional entrepreneurship.

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Table 1: Summary Statistics

Variable	Mean	Std Dev	Min	Max
Benefit: Finding Employees	1.520147	0.8705542	1	4
Benefit: Press Attention	2.805861	1.14518	1	4
Benefit: Customer Base	2.599265	1.176836	1	4
Log (% Funded)	2.135531	1.021794	1	4
Formal	-0.4020424	1.906891	-4.60517	3.503847
Established Prior to Campaign	0.4468864	0.498084	0	1
Log (Goal)	0.4175824	0.4940663	0	1
Duration	4.179332	0.3788884	3.69897	5.69897
Featured	38.80131	13.02839	15	90
Design	0.1025641	0.3039459	0	1
Technology	0.4542125	0.4988135	0	1
Project Year 2010	0.2930403	0.4559927	0	1
Project Year 2011	0.0805861	0.2726983	0	1
Objective: New Ongoing Business	0.4175824	0.4940663	0	1
Objective: New Product	0.5714286	0.4957805	0	1
Campaign Reason: Could Not Be Funded	0.1758242	0.3813696	0	1
Campaign Reason: Marketing	0.5091575	0.5008343	0	1
Campaign Reason: Community	0.6227106	0.4855985	0	1
Sought Prior Funds: Creators	0.3919414	0.4890803	0	1
Sought Prior Funds: Family & Friends	0.5421245	0.4991374	0	1
Sought Prior Funds: External Companies	0.1428571	0.3505698	0	1
Endorsements	0.1611722	0.368365	0	1
Employee Growth	0.3479853	0.4772061	0	1
Number of Founders	1.452381	7.75009	-19	105

Table 2: Ordinal Logit of Ex-Post Campaign Benefits

	Find Employees		0 0	Business Partners
	(1)	(2)	(3)	(4)
Log (% Funded)	0.239*	0.791***	0.817***	0.408***
	(0.109)	(0.114)	(0.114)	(0.0831)
Formal	0.590+	-0.320	-0.0361	-0.0799
	(0.341)	(0.336)	(0.296)	(0.313)
Established Prior to Campaign	0.552	0.442	-0.0626	0.366
	(0.379)	(0.315)	(0.295)	(0.327)
Log (Goal)	1.431***	1.581***	0.613+	0.800*
	(0.378)	(0.406)	(0.366)	(0.362)
Duration	-0.00256	0.0127	0.00133	0.0158
	(0.0118)	(0.00935)	(0.00935)	(0.0114)
Featured	1.067*	1.390**	0.195	0.988*
	(0.487)	(0.509)	(0.508)	(0.440)
Design	-1.017**	0.639+	-0.445	0.0998
	(0.371)	(0.335)	(0.333)	(0.354)
Гесhnology	-1.021*	0.500	-0.667+	0.195
	(0.404)	(0.365)	(0.347)	(0.340)
Project Year 2011	0.297	-0.509	0.0741	0.602
	(0.648)	(0.492)	(0.571)	(0.538)
Project Year 2012	-0.0120	-0.947+	-0.423	-0.0612
	(0.685)	(0.517)	(0.595)	(0.552)
Objective: New Ongoing Business	0.878*	0.0754	0.270	0.639*
	(0.389)	(0.327)	(0.328)	(0.304)
Objective: New Product	0.186	0.121	0.591	0.0470
	(0.501)	(0.437)	(0.394)	(0.428)
Campaign Reason: Could not be Funded	0.0225	-0.248	0.469+	0.367
	(0.295)	(0.261)	(0.256)	(0.261)
Campsign Crowdfunding: Marketing	0.373	0.222	0.763**	0.580*
	(0.359)	(0.292)	(0.276)	(0.279)
Campaign Reason: Community	-0.0961	0.248	0.0325	0.0599
	(0.374)	(0.328)	(0.278)	(0.299)
Sought Prior Funds From: Creators	-0.0625	-0.0295	0.0576	-0.203
	(0.301)	(0.285)	(0.253)	(0.253)
Sought Prior Funds From: Family Friends	0.154	-0.408	-0.204	-0.403
	(0.377)	(0.357)	(0.354)	(0.378)
Sought Prior Funds From: External Financial Firms	-0.349	0.389	0.332	0.370
	(0.445)	(0.425)	(0.353)	(0.365)
Endorsements	0.00807	0.790**	0.126	-0.239
	(0.315)	(0.295)	(0.272)	(0.280)
Employee Growth	0.0229	0.155**	0.0881**	-0.0130
	(0.0281)	(0.0496)	(0.0293)	(0.0230)
Number of Founders	-0.193+	0.0746	0.0855	0.0266
	(0.117)	(0.129)	(0.115)	(0.130)
Observations	273	274	273	273
Pobliet etandard errore in parentheses	210	417	210	210

Robust standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Table 3: The marginal effect of Log (% Funded) on $Find\ Employees$ across formal and informal groups

Value of	Marginal Effect of	(2) - (1)	
Find Employees	Employees Formal = 0 (1)		
1	-0.012	-0.093 ***	-0.081 **
2	0.006	0.024 **	0.018 †
3	0.004	0.034 **	0.030 *
4	0.002	0.035 *	0.033 *

Figure 1: The marginal effect of Log (% Funded) on Find Employees across formal and informal groups

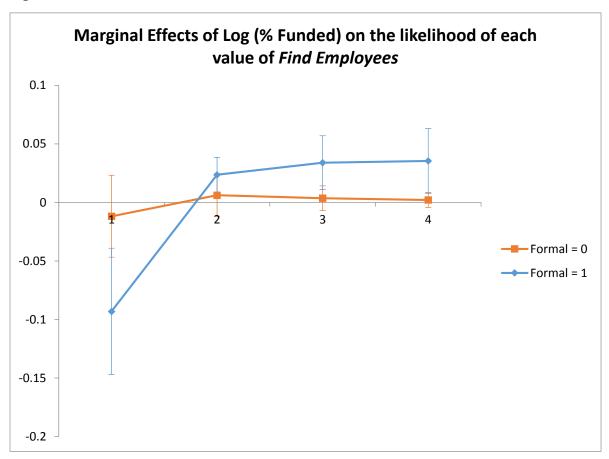


Table 4: The marginal effect of Log (% Funded) on $Business\ Partners\ across\ formal\ and\ informal\ groups$

Value of	Marginal Effect of	(2) - (1)	
Business Partners	Formal = 0 Formal = 1 (1) (2)		
1	-0.060 ***	-0.098 ***	-0.038 †
2	0.004	-0.017 †	-0.021 *
3	0.035 ***	0.057 ***	0.022 †
4	0.022 ***	0.058 ***	0.036 *

Figure 2: The marginal effect of Log (% Funded) on *Business Partners* across formal and informal groups

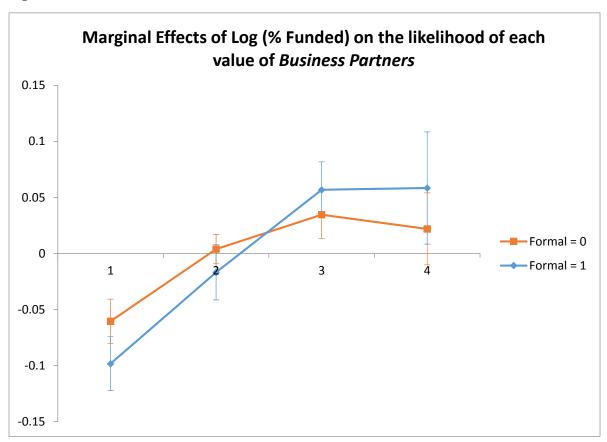


Table 5: The marginal effect of Log (% Funded) on $Press\ Attention$ across formal and informal groups

Value of	Value of Press Attention Marginal Effect of Log(% Funded) Formal = 0 Formal = 1 (1) (2)		(2) (2)
Press Attention			(2) - (1)
1	-0.084 ***	-0.064 ***	0.020
2	-0.024 ***	-0.043 ***	-0.019 **
3	0.008	-0.018	-0.026 †
4	0.100 ***	0.124 ***	0.024

Figure 3: The marginal effect of Log (% Funded) on *Press Attention* across formal and informal groups

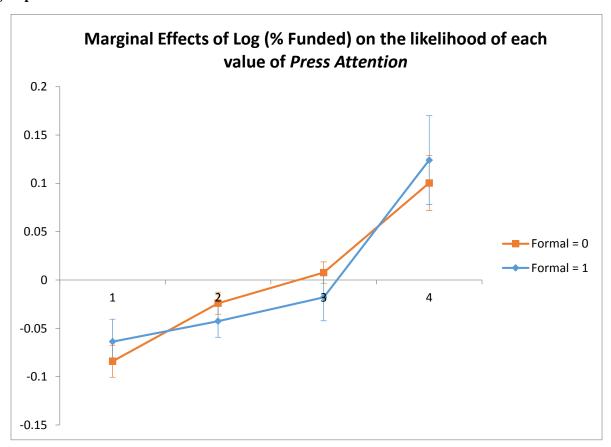


Table 6: The marginal effect of Log (% Funded) on *Engage Customers* across formal and informal groups

Value of	Marginal Effect of			
Engage Customers	Formal = 0 (1)	Formal = 1 (2)	(2) - (1)	
1	-0.098 ***	-0.083 ***	0.015	
2	-0.022 ***	-0.056 ***	-0.034 **	
3	0.018 **	-0.021 †	-0.039 **	
4	0.102 ***	0.161 ***	0.058 *	

Figure 4: The marginal effect of Log (% Funded) on *Engage Customer* across formal and informal groups

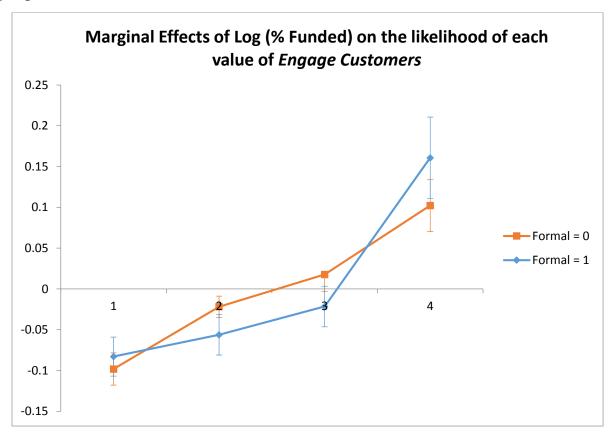


Table 7: Linear Regression Model of Fundraising Performance

Log (% Funded)
Established Prior to Campaign -0.215 (0.211) Log (Goal) -0.807** (0.267) Duration -0.0145+ (0.00749) Featured -1.598*** (0.298) Design -0.533* (0.229) Technology -0.260 (0.269) Project Year 2011 -0.0963 Project Year 2012 -0.175 (0.344) Objective: New Ongoing Business -0.609 Objective: New Product -0.0280 (0.238) Objective: New Product -0.0280 (0.318) Campaign Reason: Could not be Funded -0.0584 (0.186) Campsign Crowdfunding: Marketing -0.0363 (0.221) Campaign Reason: Community -0.0818 -0.0981 -0.0981 -0.0176) Sought Prior Funds From: Creators -0.0818 -0.008* (0.238)
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Campaign Reason: Could not be Funded -0.0584 (0.186) (0.186) Campsign Crowdfunding: Marketing 0.0363 (0.221) (0.221) Campaign Reason: Community 1.399*** (0.176) (0.176) Sought Prior Funds From: Creators 0.0818 (0.197) (0.197) Sought Prior Funds From: Family Friends -0.608* (0.238)
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(0.238)
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Sought Phoi Funds From External Financial Films 0.202
ě
(0.262) Endorsements 1.019***
(0.183)
Employee Growth 0.00917
(0.00855)
Number of Founders 0.165*
(0.0680)
Constant 1.834+
(1.080)
Observations 276
R-Squared 0.416

Robust standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Table 8: Linear Regression Models of Ex-Post Campaign Benefits

	Find Employees	Press Attention	Engage Customers	Business Partners
	(1)	(2)	(3)	(4)
Log (% Funded)	0.0225	0.321***	0.338***	0.140***
Log (% i dilded)	(0.0305)	(0.0369)	(0.0403)	(0.0360)
Formal	0.257*	-0.143	0.0182	0.0319
Tomai	(0.125)	(0.123)	(0.129)	(0.143)
Log (% Funded) X Formal	0.163**	0.0243	0.0688	0.126*
Log (% i dilded) X i olillal	(0.0494)	(0.0550)	(0.0508)	(0.0555)
Established Prior to Campaign	0.130	0.201	-0.0213	0.172
Established Filol to Campaign	(0.128)	(0.123)	(0.128)	(0.139)
Log (Goal)	0.473**	0.553***	0.329*	0.356*
Log (Goal)	(0.145)	(0.160)	(0.158)	(0.167)
Duration	-0.00153	0.00529	0.000320	0.00788
Duration	(0.00365)	(0.00329	(0.00444)	(0.00499)
Featured	0.495*	0.329*	-0.0186	0.409*
i eatureu	(0.207)			
Docian	-0.403**	(0.138) 0.254+	(0.203) -0.205	(0.192) 0.0456
Design				
Tachnalagy	(0.141) -0.344*	(0.134) 0.192	(0.146) -0.235	(0.151) 0.0749
Technology				
Project Voor 2011	(0.138) 0.125	(0.143) -0.0476	(0.152) 0.0487	(0.150) 0.353
Project Year 2011				
Project Veer 2012	(0.160)	(0.188)	(0.235)	(0.222)
Project Year 2012	0.0214	-0.255 (0.200)	-0.176 (0.240)	0.00677
Objective: New Ongoing Business	(0.164) 0.209+	(0.209)	(0.249)	(0.230) 0.240+
Objective. New Origoing Business		0.0551	0.120	
Ohio ativas Nass Dandust	(0.109)	(0.130)	(0.145)	(0.134)
Objective: New Product	0.0360	0.0743	0.288+	-0.0128
Orangelon Brasson Orald and he Founded	(0.156)	(0.171)	(0.171)	(0.185)
Campaign Reason: Could not be Funded	-0.0195 (0.402)	-0.0939	0.155	0.157
Orange share Orange share the second state of	(0.103)	(0.106)	(0.111)	(0.118)
Campsign Crowdfunding: Marketing	0.0658	0.114	0.325**	0.283*
Orange in December Orange its	(0.112)	(0.116)	(0.121)	(0.123)
Campaign Reason: Community	-0.0373	0.166	0.0731	0.0620
County Dries Funds France Creators	(0.132)	(0.119)	(0.131)	(0.137)
Sought Prior Funds From: Creators	0.0412	-0.0576	-0.000155	-0.0822
County Dries Funds France Foreity Friends	(0.0999)	(0.111)	(0.110)	(0.111)
Sought Prior Funds From: Family Friends	-0.0261	-0.156	-0.0657	-0.185
County Dries Funds France Futernal Financial Firms	(0.127)	(0.135)	(0.143)	(0.153)
Sought Prior Funds From: External Financial Firms	0.0245	0.220	0.198	0.247
Fadements	(0.158)	(0.161)	(0.159)	(0.163)
Endorsements	-0.0241	0.340**	0.114	-0.0949
Faralassa Ossath	(0.119)	(0.114)	(0.124)	(0.126)
Employee Growth	0.0115	0.0112*	0.0160*	-0.00595
Niveshay of Favordays	(0.0107)	(0.00561)	(0.00631)	(0.00881)
Number of Founders	-0.0898*	0.0125	0.00895	-0.00610
Comptont	(0.0413)	(0.0504)	(0.0534)	(0.0562)
Constant	-0.417	0.0687	1.051	-0.255
	(0.599)	(0.657)	(0.670)	(0.683)
Observations	273	274	273	273
			273 0.478	0.304
R-Squared	0.247	0.520	0.470	0.304

Robust standard errors in parentheses *** p<0.001, ** p<0.01, * p<0.05, + p<0.10