

## Kicking Off Social Entrepreneurship: How A Sustainability Orientation Influences Crowdfunding Success

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**ABSTRACT** Research generally suggests that, relative to commercial entrepreneurs, social entrepreneurs stand at a disadvantage at acquiring resources through traditional financial institutions. Yet interest in social entrepreneurship appears to be at an all-time high. The current paper advances the argument that an innovative institutional form – crowdfunding – has emerged to address the needs of social entrepreneurs and other entrepreneurs with limited access to traditional sources of capital. To examine this, we study whether and how a sustainability orientation affects entrepreneurs' ability to acquire financial resources through crowdfunding and hypothesize that a venture's sustainability orientation will enhance its fundraising capability. We also suggest that project legitimacy and creativity mediate the relationship between a sustainability orientation and funding success. Our analysis produces two key findings: 1) a sustainability orientation positively affects funding success of crowdfunding projects, and 2) this relationship is partially mediated by project creativity and third party endorsements.

**Keywords:** creativity, crowdfunding, entrepreneurship, legitimacy, social entrepreneurship, sustainability

## INTRODUCTION

While social entrepreneurship activities continue to grow in importance and number (Lumpkin et al., 2013; Margolis and Walsh, 2003; McMullen and Warnick, 2015; Zahra and Wright, 2015), access to resources constrains the founding and growth of socially-oriented organizations. Austin et al. (2006) suggest that, compared to profit-focused or commercial ventures, social ventures face difficulties in resource mobilization. Their reasoning is that 'the nondistributive restriction on surpluses generated by nonprofit organizations and the embedded social purpose of for-profit or hybrid forms of social

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enterprise limits [*sic*] social entrepreneurs from tapping into the same capital markets' (Austin et al., 2006, p. 3). Whereas commercial entrepreneurs can attract the attention of commercial lenders or private equity investors, social entrepreneurs often appear less attractive to traditional capital providers. Such curtailed access to resources becomes especially onerous when social ventures need capital to invest in commercial activities that generate earned income.

The dearth of support from capital markets stands in contrast to the increasing societal support for social entrepreneurs. The popularity of books like David Bornstein's (2007) *How to Change the World: Social Entrepreneurs and the Power of New Ideas* is one illustration of how popular culture has embraced the notion of social entrepreneurship. Writing from broader sociological and historical perspectives, Meyer (2010, p. 6) goes on to describe those social changes that encouraged the rise of social entrepreneurship:

Many of the social structures that expanded rapidly in the postwar world are conspicuous for their absence of claimed selves and interests and for their claimed agency for such universal or highly collective goods as world peace, the environment, human rights, or models of economic growth (Meyer and Jepperson, 2000). And their social authority derives from their disinterested reflection of transcending purposes, not from their own interests. Adopting the stance of rising above the self, they are not mainly interested actors, so much as Others, in the old Meadian sense, and they derive their agentic authority from roots that would once have been considered religious.

With traditional financial institutions being generally incompatible with ventures that seek to 'rise above the self', it is reasonable to predict the emergence of new financial institutions that parallel societal support for social entrepreneurship. We suggest that this has happened in the form of a relatively novel and increasingly important source of capital: crowdfunding. With the needs of social entrepreneurs being unmet or underserved by traditional capital markets, crowdfunding offers a distinct avenue for acquiring resources that may exhibit a preference for funding social entrepreneurs over commercial-only entrepreneurs.

Over five billion dollars was raised on crowdfunding platforms in 2013 – a 188 per cent growth rate over 2012 (Montini, 2014). While entrepreneurial funding by a loose collection of individuals is not new, recently developed on-line crowdfunding platforms introduce an institutional setting that differs from that of traditional funding sources. Crowdfunding platforms create financial opportunities for early-stage entrepreneurial ventures with little track record or little available data, while simultaneously increasing the anonymity of the relationship between funders and entrepreneurs and democratizing the financial decision by drawing upon a large number of relatively small contributions (Mollick, 2014; Ordanini et al., 2011). Some platforms, such as Kickstarter, are reward-based and, as a result, move away from the traditional model of investors either acquiring equity in, or making a loan to, a venture. For reward-based crowdfunding, backers' motivations shift from pecuniary returns to other types of benefits.

Based on these institutional characteristics of crowdfunding, the current paper proposes that, contrary to the findings for traditional capital markets, entrepreneurs with a

sustainability orientation will experience greater levels of crowdfunding success, relative to commercial-only entrepreneurs. By an entrepreneur's sustainability orientation, we refer to the entrepreneur embracing goals or objectives that 'focus on the preservation of nature, life support, and community in the pursuit of perceived opportunities to bring into existence future products, processes, and services for gain, where gain is broadly construed to include economic and non-economic gains to individuals, the economy, and society' (Shepherd and Patzelt, 2011, p. 137). Drawing upon theoretical work on the changing nature of institutions, research on social movements, and data that shed light on the beliefs and values of crowdfunders, we suggest that the collection of individuals engaged in crowdfunding generally share a 'loose ideology' (McCarthy and Zald, 1977; Überbacher, 2014) that is supportive of a sustainability orientation. In addition to the hypothesis that a sustainability orientation will enhance a venture's access to capital through crowdfunding, we also hypothesize two mechanisms that mediate the relationship between a sustainability orientation and funding success: project legitimacy and creativity.

We test our hypotheses in a sample of crowdfunding campaigns on the Kickstarter platform. Kickstarter's stated mission is to bring creative projects to life, by funding activities that produce or create output to be shared with others. It operates with explicit rules against donating money to charity or paying out financial incentives. Because of Kickstarter's prohibition of philanthropic donations, we assume that projects are necessarily commercial in nature but vary in whether or not they also adopt a sustainability orientation.

Our results indicate that, in samples of two distinct Kickstarter categories of projects – technology projects and film/video projects – a sustainability orientation increases funding success. Findings reveal that projects with either a social orientation or an environmental one, relative to commercial-only projects, are not only more likely to achieve their funding goals but also are more likely to receive higher total pledge amounts. In both technology and film/video samples, we find that the direct effect of a sustainability orientation on funding success is partially mediated by the creativity of crowdfunding projects, but find mediating effect for project legitimacy only in the technology sample. For technology projects, the mediating effect of creativity appears for environmental and social orientation and the mediating effect of third party endorsements for an environmental orientation; for film/video projects, the mediating effect of creativity appears for social orientation.

In the next section, we develop hypotheses based on a theoretical discussion of a sustainability orientation and its significance in the crowdfunding context. We follow this with a description of the research methods used to test these hypotheses, present the results of these tests, discuss our findings and make recommendations for future research.

## THEORETICAL DEVELOPMENT

Kuckertz and Wagner (2010, p. 524) describe sustainable entrepreneurs as focused on a double or triple bottom line 'by balancing economic health, social equity and environmental resilience through their entrepreneurial behavior'. As defined in the

introduction, the sustainability orientation of entrepreneurs also relates closely to the term ‘social entrepreneur’, where ‘social entrepreneurship can be loosely defined as the use of entrepreneurial behavior for social ends rather than for profit objectives, or alternatively, that the profits generated are used for the benefit of a specific disadvantaged group’ (Hibbert et al., 2005, p. 159). We do not accept a hard distinction between commercial and social entrepreneurs because sustainability goals are important for some commercial entrepreneurs, as are profitability goals, for a growing number of social entrepreneurs (Wilson and Post, 2013). This approach allows for social entrepreneurs to adopt commercial (earned-income) strategies and for commercial entrepreneurs to adopt strategies that include a social mission (Maurer et al., 2011; Wilson and Post, 2013).

To address the new institutional role that crowdfunding plays in broader financial, economic, and social ecosystems, this section of the current paper addresses the theoretical question of how adopting a sustainability orientation influences a new venture’s chances of crowdfunding success. This context of reward-based crowdfunding raises several theoretical issues. The due diligence conducted by crowdfunders is minimal because available information is limited, many ventures have little history, many entrepreneurs have little experience, and data are typically self-reported. In addition, social capital generally plays a limited role in mitigating any information asymmetries between entrepreneur and investors in crowdfunded projects. With the diffuse and global nature of the ‘crowd’, most backers are geographically and socially distant from the entrepreneurs they support. Thus, considerable uncertainty often surrounds a backer’s assessment of a venture’s likelihood of success; while a factor in funding success, this assessment may not dominate other factors.

For reward-based crowdfunding, the desirability of both the rewards offered and a venture’s mission strongly influence financial contributions from backers. Reward-based funding can be seen as treating backers as customers with benefits, such as early access to products or access to products at better prices (Mollick, 2014). In addition, crowdfunders often donate money (or more money than necessary to receive a reward) because they believe in or share the entrepreneur’s goals. When this happens, funding success will be influenced by the socio-cultural values represented by the ‘crowd’<sup>[1]</sup> frequenting a particular crowdfunding platform, as well as their beliefs or assumptions about the causes and solutions to different social needs. Different crowdfunding platforms may have different loose ideologies, depending on the mission of the platform and the values and beliefs of individuals frequenting the platform.

For the above reasons, we anticipate that an entrepreneur’s goals and the ideology, values, and beliefs implied or associated with these goals will influence funding success in the institutional context of reward-based crowdfunding. It would be unfair to say, however, that around the globe or even within a single cultural context, individuals uniformly support the efforts of entrepreneurs possessing a sustainability orientation. The ideology behind the title of Milton Friedman’s well-cited 1970 NY Times article – ‘The Social Responsibility of Business Is to Increase Its Profits’ (Friedman, 1970) – is entrenched in many belief systems about the optimal interplay of business, society, and government. Within and across cultures, we find differing adherence to the belief that free markets and unobstructed capitalism generate powerful incentives that can improve

the social welfare of disadvantaged parties. Conversely, belief that top-down decision-making, planning, and governmental intervention can solve societal and environmental problems is taken-for-granted by others. While social entrepreneurship may reasonably be viewed as one of many institutional forms (alongside markets, governments, and other institutions) striving toward economic, social, and environmental progress, an individual's perception of the efficacy and appropriateness of social entrepreneurship as a vehicle for progress often turns on ideology, instead of analysis.

Therefore, the relevant question becomes what is the loose ideology of most crowd-funders? Demographics shed some light. They tend to be young (25–34), male, primarily from North America and Europe, and with considerable earning power (over \$100,000) (*The American Dream Composite Index*, 2012). At Kickstarter, their average age suggests many belong to generation Y and the millennial generation. These generations have indicated preferences for working for employers that are socially or environmentally friendly (Cahill and Sedrak, 2012; Eversole et al., 2012; Hewlett et al., 2009), and they prefer to buy from suppliers of green or socially responsible products (Beaton, 2007). Given the crowd of potential backers associated with Kickstarter, we assert that the loose ideology of crowdfunding will generally support a sustainability orientation, and hypothesize that the overall effect of a sustainability orientation on funding success will be positive.

Before offering a formal hypothesis, we consider two elements of a sustainability orientation: a social orientation and an environmental orientation.<sup>[2]</sup> Along with economic returns, these correspond to the components of a triple bottom line. In making this distinction, the question arises as to whether these will be a notable preference for one type of sustainable orientation over the other? Can one *ex ante* predict to which aspects of a sustainability orientation a crowd will lend its greater support?

It seems relatively obvious that not all social or environmental problems are viewed as equally legitimate and feasible because of political and social constraints (Austin et al., 2006; Frank et al., 1999; Meyer, 2010; Meyer and Jepperson, 2000; Meyer and Rowan, 1977). For example, the social cause of 'fighting poverty' is likely to be viewed as more legitimate than 'eliminating prejudices against or stereotypes about having blonde hair'. In addition, both the cause and the proposed solution will influence the support obtained from the crowd. Attempts to reduce urban poverty by encouraging birth control usage in teenagers are more controversial in the USA than are job training programmes for unemployed youths. Given the breadth of the categories with which we are working, we cannot predict *ex ante* whether projects with social orientations or those with environmental orientations will command more support from the crowd.

We offer the above discussion to distinguish between the two sustainability orientations, but we do not posit whether a sustainability orientation targeting social goals versus one targeting environmental goals will be preferred by the crowd.<sup>[3]</sup> We hypothesize that:

*Hypothesis 1a:* Projects with a social orientation are more likely to succeed at crowd-funding than are projects with no sustainability orientation, *ceteris paribus*.

*Hypothesis 1b:* Projects with an environmental orientation are more likely to succeed at crowdfunding than are projects with no sustainability orientation, *ceteris paribus*.

Organization theorists, sociologists, and entrepreneurship scholars have all noted the importance of legitimacy for entrepreneurial ventures in general and for entrepreneurial resource acquisition in particular (Dowling and Pfeffer, 1975; Lounsbury and Glynn, 2001; Singh et al., 1986; Stryker, 1994; Zimmerman and Zeitz, 2002; Zott and Huy, 2007).<sup>[4]</sup> We employ Suchman's (1995, p. 574) definition of legitimacy as:

... a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions.

Mobilizing resources is a challenge for new ventures because they lack the credibility and proven track record of established ventures (Schoonhoven and Romanelli, 2001; Singh et al., 1986). Building legitimacy during early stages of a venture's formation has been shown to be an important strategy that enables resource acquisition (Aldrich and Fiol, 1994; Lounsbury and Glynn, 2001; Zimmerman and Zeitz, 2002). Research on entrepreneurial action has identified activities that entrepreneurs can engage in to increase legitimacy of their venture – such as creating rules, norms, and values (Zimmerman and Zeitz, 2002), leveraging friendship and obligations (Starr and MacMillan, 1990), and managing impressions through symbolic action (Zott and Huy, 2007) – and to facilitate the acquisition of resources.

Research suggests that a sustainability orientation may increase a venture's legitimacy. Dart (2004) argues that the legitimacy of social enterprises is enhanced by their mix of social and commercial strategies because they draw upon ideological values of creating collective social goods combined with neo-conservative, pro-business, and pro-market values. The unique hybrid form of social enterprise is limited primarily to organizations that pursue multiple bottom lines (as studied in the current paper), and while innovative and potentially upsetting to the status quo, they appear to appeal broadly to individuals holding a wide range of ideologies.

Because potential funders receive only limited and often self-reported information on many crowdfunding platforms from entrepreneurs and because nascent entrepreneurs often lack the social capital that potential funders would value, the legitimacy of third party endorsers also serves to mitigate information asymmetry between the entrepreneur and the funder. Because legitimacy is conferred status, it is often controlled by those outside the organization (Pfeffer and Salancik, 1978). We use legitimacy to mean that the organization has its actions endorsed by external actors (Deephhouse and Suchman, 2008; Doh et al., 2010). Third-party endorsements may serve as important signals of the viability of projects, and reduce the uncertainty surrounding a backer's assessment of a venture's likelihood of success (Freeman et al., 1983; Singh et al., 1986; Stinchcombe, 1965; Suchman, 1995).

Therefore, we expect that a sustainability orientation will increase the legitimacy of a new venture in the form of endorsements, and these endorsements will serve as a signal of project quality, increasing the likelihood of funding success. This legitimacy argument



theoretically implies a mediation model: a sustainability orientation will increase the legitimacy of a new venture, which will increase the ability to acquire resources. We expect that the model will be partially mediated. Hypotheses 1a and 1b suggest a direct effect of sustainability orientation on funding success and this direct effect should remain when the mediating variables are incorporated into the analysis. Therefore:

*Hypothesis 2:* The positive effect of a sustainability orientation (environmental or social) on funding success will be partially mediated by the project's perceived legitimacy (endorsements).

As noted earlier, Kickstarter's stated mission is to bring creative projects to life, and it has been persuasively argued that creativity lies at the heart of the theory of entrepreneurship (Gilad, 1984). By creativity, we refer to the development of products or processes that are both novel and useful (Hennessey and Amabile, 2010). Something (product, service, process) is judged to be novel when no one is aware of it; it is judged to be useful when it has some social value (Finke et al., 1996). Projects that are more creative will be in closer alignment with Kickstarter's mission and with the expectations of potential funders, and we expect, will be more successful at raising funds.

Evidence suggests that adopting a sustainability orientation may stimulate creativity (Gonin et al., 2013; Grant and Berry, 2011; Hahn et al., 2014; Lefebvre and Lefebvre, 2012). Hahn et al. (2014) argue that a sustainability orientation forces managers to confront the tensions that exist between complex economic, social, and environmental considerations, and that confronting these tensions leads to more creativity. They describe these elements of the double bottom line as frames or lenses that differ in their structures, contents, goals, and logics. Being forced to confront contradictions or paradoxes across these different frames may promote creative insights that allow managers to recognize and accept contradictions simultaneously. This will result in cognitive processes that generate more recombinations of information in memory that should lead to the discovery of more useful and novel products.

Therefore, we hypothesize that entrepreneurs adopting a sustainability orientation will be more likely to discover creative products/services and, consequently, attract more funding.

*Hypothesis 3:* The positive effect of a sustainability orientation (environmental or social) on funding success will be partially mediated by product/service creativity.

In conclusion, we hypothesize that a sustainability orientation will increase the likelihood that a project will successfully raise capital on a crowdfunding platform. We anticipate finding that the positive effect of a social/environmental orientation on funding success will be partially mediated by third-party endorsements and product/service creativity.

The next section describes the research design that we used to test our hypotheses.

## METHODOLOGY

The data for this study were collected from the Kickstarter website using a web crawling algorithm programmed in Python, a general purpose, high-level programming language. The algorithm was designed to collect all projects posted on Kickstarter from its inception in April 2009 to July 2013. Automating the data collection made possible the retroactive collection of information on failed projects (those that have not reached their funding goal). A total of 87,261 projects were collected from Kickstarter for this roughly four-year period. Although Kickstarter has several project categories (art, comics, dance, design, fashion, film and video, food, games, music, photography, publishing, technology and theatre), we focused on taking a random sample of technology projects and film and video projects. We sampled technology projects because Kickstarter treats technology projects somewhat differently in its requirements. Because technology projects are expected to deliver concrete rewards to funders (i.e., products or services), Kickstarter mandates the inclusion of a manufacturing plan and a delivery date for rewards (Mollick, 2014). Given this requirement, technology projects are more likely to evolve into commercial ventures than are projects from other categories. To increase the generalizability of our findings, we also sampled projects from the film and video category. Film and Video represents a large and, much like technology, prominent category. These projects represent 26 per cent of all Kickstarter projects and have generated influential videography/film.<sup>[5]</sup>

Given the anonymity, large number, and diversity of potential funders associated with most crowdfunding platforms like Kickstarter, we relied upon the public information provided on a funding campaign's website as indicative of the information potential funders used to make their funding decisions. We assumed an objectivist perspective where the perceptions of potential funders as to a project's sustainability orientation, its legitimacy, and its creativity were the same as the perceptions of the data coders employed in this study. This is consistent with other empirical research on crowdfunding (Mollick, 2014).

Since the magnitude of funding goals varies widely across Kickstarter projects, factors that affect the achievement of small versus large goals may differ (Mollick, 2014). To address this possibility, we limited the population of projects to those with a funding goal greater than or equal to \$5,000. At or above this funding level, crowdfunding is more likely to compete with funding through more established or traditional sources of capital for early stage ventures, such as angel investors and financial institutions. This reduced our population size to a total of 15,075 projects (1,476 technology projects and 13,599 film/video projects). We then randomly selected 450 projects from the technology category and 350 from the film and video category. After accounting for missing data and outliers, the final dataset consisted of 392 projects from the technology category and 315 from the film and video category. Two-tailed t-tests indicate that sampled projects do not differ significantly from the population based on funding goal ( $p = 0.30$  for technology projects;  $p = 0.83$  for film/video projects), pledge amount ( $p = 0.68$ ;  $p = 0.78$ ), duration ( $p = 0.82$ ;  $p = 0.61$ ), number of backers ( $p = 0.99$ ;  $p = 0.93$ ), number of words in project description ( $p = 0.98$ ;  $p = 0.97$ ), success rate ( $p = 0.64$ ;  $p = 0.88$ ), pledge amount ( $p = 0.83$ ;  $p = 0.77$ ), or number of reward levels ( $p = 0.75$ ;



$p = 0.66$ ). We emphasize that, as suggested for any research on nascent ventures in the field of entrepreneurship and especially social entrepreneurship (Gras et al., 2014), our sample was not biased against failed efforts.

The next section describes the operationalization of constructs.

### Dependent Variables

Kickstarter releases funding to entrepreneurs on an all-or-nothing basis. If a project creator does not reach her funding goal by the deadline that she has chosen, all money is returned to backers and she gets nothing. Should she exceed her goal, she keeps all of the money pledged. Kickstarter projects are not limited in the amount of capital they can raise above their funding goal. To operationalize funding success, we created two variables: 1) *goal attainment*, which is a dichotomous variable that indicates whether a project reached or exceeded its funding goal (1 = goal attained; 0 = goal not attained), and 2) *log of pledge amount*, which is a continuous variable equal to the log of total amount of capital raised. Due to a high degree of skewness, we take the log of the variable pledge amount. If the distribution of a variable has a positive skew, a natural transformation of the variable makes the variable more normal (Manning and Mullahy, 2001).

### Independent Variables

The independent variables in this study are sustainability orientation (social and environmental), endorsements by third parties, and project creativity. After collecting all the information from each project's Kickstarter campaign page, we tasked nine independent coders/judges with coding the projects on their sustainability orientation and creativity. Three coders judged the sustainability orientation of all projects; three judges rated the technology projects on creativity and two control variables (technical goodness and project complexity); three judges rated the film and video projects on creativity and two control variable (aesthetic appeal and project complexity).

*Operationalizing sustainability orientation.* We operationalized the social sustainability orientation (S.O.-Social) construct and the environmental sustainability orientation (S.O.-Environmental) construct with dichotomous variables representing whether or not a project indicated primarily social or environmental objectives. Our selecting of these two categories is informed by Shepherd and Patzelt's (2011) research that suggests the goal of sustainable entrepreneurship is to sustain nature, life support systems (i.e., environmental) and community (i.e., social). The separation of sustainability into environmental and social causes is also concomitant with efforts to characterize and measure sustainable development. The Wellbeing Index, sponsored by the World Conservation Union and published in '*The Wellbeing of Nations: A Country-by-Country Index of Quality of Life and the Environment*' (Prescott-Allan, 2001), aggregates into two subindices: human wellbeing and ecosystem wellbeing. The ecosystem wellbeing index is a composite of indices for land, water, air, species and genes, and resource use. The human wellbeing index is a composite of indices for health and population, wealth, knowledge and culture, community, and equity.

Three coders were recruited from the undergraduate programme at the authors' university. (In general, many of the coders' demographic characteristics were similar to those in the crowdfunding community, with the exception of income). Coders did not communicate with each other, and the authors met with each to explain the constructs and answer any questions. We provided the coders with definitions for each construct and a list of keywords likely to be associated with each construct. Coding instructions followed examples of sustainability orientations in Parris and Kates (2003) and Shepherd and Patzelt (2011). Appendix provides examples of instructions provided to the coders. Ten practice projects outside of the sample were chosen by the authors to illustrate each sustainability construct to coders. Each coder was instructed to read the project descriptions, review project videos, and code each project with a 1 or 0 for both social orientation and environmental orientations. After completing the coding of these ten projects, each coder met with the authors to discuss any ambiguities. (Note that the coders' evaluations of these ten projects perfectly matched that of the authors). Coders completed their work within four weeks and approximately 40 hours of work per coder.

We calculated Cronbach's alpha across the three coders to measure inter-rater reliability (Krippendorff, 1980). The Cronbach's alpha for *environmental orientation* was 0.81, and for *social orientation* was 0.71. These statistics fall above an acceptability cutoff of 0.70 found in the entrepreneurship literature (Davidsson, 2006). In instances of disagreement among the coders, the majority rating was used (i.e., two out of three).

A small number of projects represented some aspects of both a social and environmental orientation (8 technology projects and 3 film and video projects). Based on the primary goal of the projects, these cases were classified as having either an environmental or social orientation. One such case from our sample is a technology project called 'Balloon Mapping Kits' created by Mathew Lippincott. Balloon Mapping Kits use balloons to take aerial photographs and a browser application 'MapKnitter' to stitch the photographs together into an aerial map. Balloon mapping was developed with a particular interest 'in applying this [technology] to civic and environmental issues',<sup>[6]</sup> indicating the potential to solve both social and environmental ills. However, while balloon mapping has recently been used to further social issues, such as for protest mapping, aerial mapping is more commonly used to take high-resolution images of environmental issues,<sup>[7]</sup> such as oil spills, deforestation, landfill incineration, and wetland conservation.<sup>viii</sup> Because the primary use of this particular technology is resolution of environmental issues, we code this project as having an environmental orientation. Reviews of other projects coded as having both an environmental and social orientation indicate these projects are primarily either socially or environmentally orientated, we therefore code these projects according to their primary sustainability orientation.

The transparency of Kickstarter projects ensures a high degree of content validity allowing us to tease apart a project's sustainability orientation from its sustainability message. High content validity demands a category be described with enough detail to allow coders to judge the category accurately (Trochim and Donnelly, 2006). Because every project on Kickstarter is a new creation, creators must describe in detail what their project does and what makes it new ('Kickstarter is not a store' (Strickler et al., 2012)). Creators are asked 'to share with backers exactly what's been done so far, show how the product currently works, and explain how it will be completed' (Strickler et al., 2012).

Project descriptions provide sufficient detail to allow for the separation of projects with a sustainability orientation from those that claim to do no harm to people or no damage to the environment.

*Operationalizing creativity.* To test for the mediating effects of *creativity*, we relied on ratings of expert judges (Amabile, 1996). The three judges that coded the creativity of technology projects were recruited from doctoral programmes in computer science and electrical engineering in the authors' university. The three judges that rated the film and video projects were recruited from the industrial design department at the authors' university. The judges were not preselected on any dimensions other than their expertise in the area in question. One of the most widely accepted instruments for measuring creativity is the consensual assessment technique (CAT), developed by Amabile (1983, 1996). The CAT is especially appropriate for the rating of product creativity because it has generated reliable and valid results in hundreds of studies of creative products, including ideas for computer programmes (Conti and Amabile, 1995), ideas for high-tech products (Amabile, 1996), and business solutions (Conti, 1992).

Each judge made his or her assessments independently and was blind to the hypotheses of the study and to the projects' ratings on social and environmental sustainability orientations. The reliability of the consensual assessment technique relies on the assumption that experts in a domain can recognize creativity when they see it. If they can reliably agree with one another that a product (or service) is creative, we must accept it as such (Amabile, 1996). The integrity of the assessment depends on the judges not being trained by the experimenters; thus the judges in this study were asked to use their own subjective criteria to evaluate whether a product was creative or not. (Appendix presents the judging instructions for the creativity variables). The same procedure was followed for technical goodness, aesthetic appeal, and technical complexity of projects, variables that were used as controls (Amabile, 1996). Technical goodness was a control unique to technology projects and aesthetic appeal a control unique to the film and video category. Judges were instructed to rate each product relative to other products in the sample on the dimension in question, not against some absolute standard. To accomplish this, each judge was asked to first read 20 randomly assigned projects, before beginning to assign ratings. Finally, to control for methodological artifacts, each judge rated projects in a different random order and considered the various dimensions in a different random order. Judges completed the rating during five consecutive day sessions (between 43 and 45 hours per judge). Coding instructions follow those outlined by Amabile (1996).

The goal of this coding scheme was to discriminate across projects with regard to the judges' attitudes about the creativity, technical goodness, aesthetic appeal and complexity of projects. Most CAT studies employ successive ratings of stimuli, rather than asking judges to evaluate pairs of projects. This offers a practical advantage because absolute responses are much easier and faster to obtain than are paired comparisons (Bock and Jones, 1968). In addition, following previous research, we averaged judges' ratings to obtain our final project scores for creativity, technical goodness, and complexity.

As before and as implied by the consensual assessment technique, a critical criterion is that the ratings are reliable, and with this method, the reliability of judges' ratings is

equivalent to construct validity. Our interjudge reliabilities for creativity ( $\alpha = 0.68$ ), technical goodness ( $\alpha = 0.65$ ), aesthetic appeal ( $\alpha = 0.66$ ) and complexity ( $\alpha = 0.66$ ) are acceptable and comparable to values in other studies of creativity (for examples, see Amabile, 1983, 1996).

*Operationalizing third party endorsements.* With the text from each project's Kickstarter page, the construct *endorsements* was operationalized with a count of independent third-parties that had endorsed a project. Technology projects may be endorsed by tech media websites or blogs, such as CNET, PcMag, Wired, or Gizmodo. Film and video projects were similarly endorsed by newspapers, websites, or blogs, such as Huffington Post, TimeOut Chicago, Culture Vulture, WindyCityTimes. We acknowledge that, in addition to reflecting project quality, endorsements may increase exposure of the project to a larger audience.

### Control Variables

Fifteen control variables were included in our analysis of the technology subsample, and 14 were included in our analyses of the film and video subsample. Two controls – whether a project had progressed beyond a prototype and whether a project was rated as technically good – were used only for projects in the technology sample. Creation of a prototype reflected the project's feasibility and reduced uncertainty about the delivery of rewards, and was coded as 1 if a prototype existed, and 0 otherwise. Technical goodness was used to control for the degree to which the technology was technically sophisticated, and was coded as described above in the discussion of the creativity variable. One control – whether a project was rated as aesthetically pleasing – was used only for projects in the film and video category. Aesthetic appeal reflected the extent to which the project, or a trailer or teaser of the video, was aesthetically appealing to coders.

The following 13 controls were included in our analyses for both samples and reflect commonly used controls of creator and project level heterogeneity in other crowdfunding studies (Cholakova and Clarysse, 2015; Mollick, 2014): project complexity, whether the project was created by a team or a single individual, the number of projects launched by the creator, the number of Facebook friends, age in days of Kickstarter at project launch, number of projects previously backed by project creator, project quality, funding goal, duration of funding period, and number of reward levels. The control variable *complexity* was described as part of the methodology for the coding creativity (see also Appendix). *Duration of funding period* was measured by the number of days between the day the project was posted on Kickstarter and the day funding ended or the project was taken down from the Kickstarter website.

To control for project *quality* we adopted the approach of Mollick (2014) and Chen et al. (2009), which focuses on preparedness. Quality/preparedness was measured by the effort reflected in a project's campaign pages. Three different measures were averaged to create a composite measure of the campaign quality; these were the count of images posted, count of videos posted, and the length in words of the project description. Because these variables were highly skewed, each of these measures was first

logged. Although all campaigns typically include at least one image and most include one video, considerable variation exists across projects. Some particularly complex or innovative projects include a long description and multiple schematics (measured as images) to describe the technology.

Previous crowdfunding studies have found that *funding goal* has a significant impact on funding success (Mollick, 2014). Intuitively, projects with smaller funding goals are more likely to reach this goal. We logged the size of each project's funding goal to control for level of funding sought by the project creator.

Many crowdfunders will back a Kickstarter project because of the rewards offered to backers. A project with a large number of possible reward offers backers more choice. By catering to a broader potential audience or a broader set of needs or wants of an audience, a project with many reward possibilities is likely to raise more funding capital and have a greater chance at success. A log of the count of *number of reward levels* was incorporated into the analysis to control for this effect.

We use three variables to control for creator heterogeneity. These are number of projects backed, whether the creator is a team or a single individual, and the number of projects he or she created on Kickstarter. On Kickstarter, one can observe the extent to which the creator of a project has previously backed others' projects (Cholakova and Clarysse, 2015). We measured the *log of the number of projects backed* to control for the creator's involvement with the Kickstarter community and experience using the Kickstarter platform. We also use *projects created* to measure a creator's experience with developing Kickstarter projects. Because a team of people can more successfully pool cognitive resources for creativity (Taylor and Greve, 2006), leverage social ties for venture performance (Vissa and Chacar, 2009), and is more likely to survive and achieve faster growth than are ventures started by individuals (Cooper and Bruno, 1977; Eisenhardt and Schoonhoven, 1990), we measure whether the project was created by a team or a single individual using a dichotomous variable *team*.

Entrepreneurial studies in general (Hsu, 2007) and crowdfunding studies specifically (Agrawal et al., 2013; Mollick, 2014) have noted the importance of social networks to venture success. To control for social network effects we collect Facebook connections of project creators. Because not all creators link their Facebook account to Kickstarter, a non-zero amount of Facebook friends is available for slightly under half of our observations (46 per cent). As noted by Mollick (2014), the decision to not link Facebook to Kickstarter may be strategic, as having no Facebook account is better than a linked account with few online connections. Therefore, we follow Mollick's example and include no Facebook connection as the base case, and compare it to accounts where individuals had a number of friends in the bottom quartile, 25–50<sup>th</sup> percentile, 50–75<sup>th</sup> percentile, and top quartile.

Finally, because our data span about a 4-year period, we control for time period effects by including the age of Kickstarter (calculated in days since its inception in April 2009) at the time of a project's initiation. Participation (both by funders and entrepreneurs) in Kickstarter and crowdfunding in general has increased significantly over time, and we control for this having a possible effect on project success.

Table I. Summary statistics

Variable	Technology projects				Film and video projects			
	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max
1. Goal Attainment	0.30	0.46	0	1	0.39	0.49	0	1
2. Log of Pledge Amount	8.02	2.04	3.04	11.94	7.62	1.99	2.77	11.82
3. S.O. – Environmental	0.05	0.21	0	1	0.05	0.22	0	1
4. S.O. – Social	0.20	0.40	0	1	0.12	0.33	0	1
5. Creativity	2.79	1.15	0	5	3.76	0.75	0	5
6. Count of Endorsements	0.17	0.82	0	5	0.04	0.31	0	5
7. Prototype Available	0.50	0.50	0	1	-	-	-	-
8. Technical Goodness	2.69	1.14	0	5	-	-	-	-
9. Aesthetic Appeal	-	-	-	-	3.71	1.01	0	5
10. Complexity	2.64	1.00	0	5	3.47	0.64	0	5
11. Team	0.38	0.49	0	1	0.37	1.01	0	1
12. Projects Created	1.36	0.86	1	7	1.37	0.86	1	9
13. Facebook Friends	255.55	555.12	0	1555	528.46	896.07	0	5000
14. Kickstarter.com Age (days)	1170	275	198	1555	1026.89	286.51	145	1541
15. Log of Projects Backed	1.12	1.12	0	4.19	1.08	1.04	0	4.22
16. Quality	8.33	1.38	5.76	11.04	7.37	1.16	5.76	10.83
17. Log of Funding Goal	9.89	1.02	8.52	13.46	9.50	0.94	8.52	12.77
18. Duration of Funding Period	38.02	12.90	10	90	40.48	17.07	10	90
19. Log of Count of Reward Levels	1.84	0.82	0	3.14	2.22	0.37	0.69	2.71
n		392				315		

Note: S.O.: Sustainability orientation.

Table I shows descriptive statistics for both samples. The next section presents the results of our analysis of the effects of a sustainability orientation on funding success.

### Analysis of Direct and Indirect Effects

Figure 1 depicts the hypothesized relationship between a sustainability orientation and funding success. In this figure, path  $c$  represents the direct relationship between a sustainability orientation (social or environmental) and funding success. Should path  $c$  not be statistically significant, we would have no evidence for a relationship (direct or otherwise) between a sustainability orientation and funding success. Paths  $a_1$  and  $a_2$  represent the effects of a sustainability orientation on endorsements and creativity, respectively, while paths  $b_1$  and  $b_2$  represent the effects of endorsements and creativity, respectively, on funding success. To support the existence of the hypothesized mediated relationships between a sustainability orientation and funding success, paths  $a_1$  and  $b_1$  (H2: third-party endorsements as mediator) and paths  $a_2$  and  $b_2$  (H3: creativity as mediator) should be significant.

To test for mediation, we use a two-step approach. The first step begins with a logistic regression analysis (for the dichotomous variable, goal attainment) or OLS regression



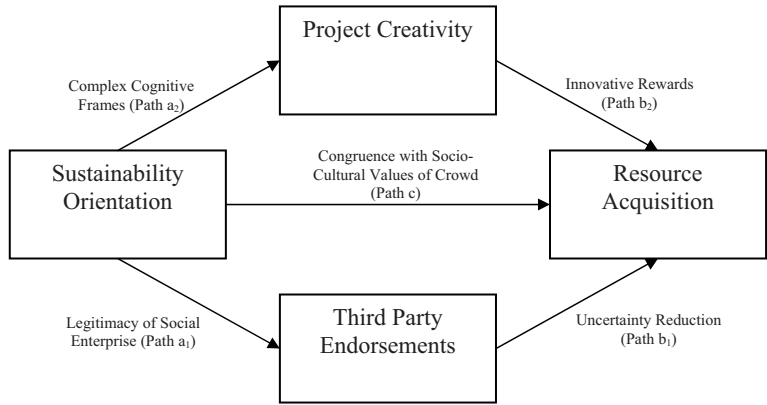


Figure 1. Mediating model and theory map of sustainability orientation on resource acquisition

analysis (for the continuous variable, pledge amount) to estimate coefficients on the independent variables to the dependent variables (the direct path; columns 2 and 5 in Table IIIa/IIIb). Note that we used logistic regression for the dichotomous dependent variable because this analysis is a special case of generalized linear models with a conditional Bernoulli distribution and thus analogous to linear regression. We also estimated the coefficients on the independent variables to the mediator variables (indirect path; Table IV columns 2, 4, 6, 8), and the coefficients on the independent and mediator variables to the dependent variables (columns 3 and 6 in Table IIIa/IIIb). Based upon a general decomposition method developed by Karlson and Holm (2011), the second step compares the estimated coefficients of two nested nonlinear probability models (Kohler et al., 2011). This method estimates the degree to which a variable mediates or explains the relationship between an independent and dependent variable. (Note that this method is available in STATA with the *khb* command).

Results

Table II presents correlation results for the two samples (Table IIa and IIb). Similar to previous studies of Kickstarter crowdfunding projects (Mollick, 2014), we find a negative correlation between funding goal and funding success and a positive relationship between the number of reward levels and funding success and a positive relationship between funding success and Facebook friends of founders. Also, similar to existing creativity research (for examples, see Amabile, 1996), we find positive correlations between creativity and technical complexity and, in the technology sample, between creativity and technical goodness.

Table IIIa presents the results of the OLS regression analysis for technology (Table IIIa) and film/video (Table IIIb) categories. Equations 1 and 4 in Tables IIIa and IIIb show the estimated effects of the control variables on goal attainment and pledge amount, respectively. Equations 2 and 5 include the estimated effects of the sustainability orientations on the dependent variables, and the mediator variables of creativity and third party endorsements are added in equations 3 and 6. The introduction of the

Table IIa. Cross-correlations for sample of technology projects

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1 Goal Attainment	1.00																
2 Log of Pledge Amount	0.66***	1.00															
3 S.O. – Environmental	0.12**	0.08	1.00														
4 S.O. – Social	0.12**	0.03	-0.11**	1.00													
5 Creativity	0.19***	0.34***	0.07	-0.04	1.00												
6 Count of Endorsements	0.14***	0.20***	0.04	0.04	0.04	1.00											
7 Prototype Available	0.15***	0.17***	0.05	-0.09*	-0.06	0.06	1.00										
8 Technical Goodness	0.15***	0.34***	0.05	-0.20***	0.54***	0.02	0.04	1.00									
9 Complexity	0.11**	0.27***	0.04	-0.10*	0.54***	0.02	-0.02	0.73***	1.00								
10 Team	0.13**	0.22***	0.00	0.06	0.09*	-0.01	0.06	0.14***	0.14***	1.00							
11 Projects Created	-0.02	0.02	0.02	-0.01	0.12**	-0.05	-0.07	0.03	-0.01	0.00	1.00						
12 Facebook Friends	0.13**	0.08	0.06	0.16***	-0.06	0.09*	-0.06	-0.04	0.02	0.01	0.00	1.00					
13 Kickstarter.com Age (days)	-0.02	-0.02	0.00	0.11**	0.02	0.00	-0.06	-0.03	0.01	0.00	-0.10**	0.06	1.00				
14 Log of Projects Backed	0.14***	0.25***	-0.03	0.03	0.16***	-0.03	-0.20***	0.15***	0.11**	-0.03	0.25***	0.10	0.06	1.00			
15 Quality	0.15***	0.43***	-0.02	-0.10*	0.23***	0.15***	0.26***	0.26***	0.17***	0.09*	0.05	-0.06	-0.14***	0.08	1.00		
16 Log of Funding Goal	-0.23***	0.21***	-0.07	-0.08	0.19***	0.11**	-0.04	0.20***	0.22***	0.07	-0.10*	0.00	-0.03	0.02	0.30***	1.00	
17 Duration of Funding Period	0.00	-0.07	0.04	0.01	-0.05	0.02	-0.04	-0.03	-0.03	-0.03	-0.09*	-0.04	-0.05	-0.09*	-0.08	-0.01	1.00
18 Log of Count of Reward Levels	0.27***	0.25***	-0.07	0.14***	-0.08	0.09*	0.00	-0.05	-0.06	-0.05	0.02	0.09	0.02	0.11**	-0.04	-0.08	0.00

Note: S.O.: Sustainability orientation.

\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.10.  
n = 392.

Table IIb. Cross-correlations for sample of film and video projects

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Goal Attainment	1.00															
2 Log of Pledge Amount	0.69***	1.00														
3 S.O. – Environmental	–0.04	–0.04	1.00													
4 S.O. – Social	0.14***	0.19**	–0.08	1.00												
5 Creativity	0.29***	0.33**	0.13**	0.18***	1.00											
6 Count of Endorsements	0.04	0.04	0.02	–0.01	–0.03	1.00										
7 Aesthetic Appeal	0.31***	0.33***	0.17***	–0.03	0.51***	–0.06	1.00									
8 Complexity	0.26***	0.29***	0.12*	0.19***	0.44***	–0.05	0.45***	1.00								
9 Team	0.06	0.07	0.06	0.05	0.16***	–0.02	0.02	0.05	1.00							
10 Projects Created	–0.05	–0.10*	–0.08	–0.07	–0.08	0.14**	–0.05	0.02	0.03	1.00						
11 Facebook Friends	0.01	0.04	–0.05	–0.09*	0.07	–0.05	0.09	0.03	–0.08	0.16***	1.00					
12 Kickstarter.com Age (days)	–0.02	0.07	0.02	–0.05	0.09	0.11**	0.18***	0.14**	–0.07	0.00	0.09	1.00				
13 Log of Projects Backed	0.35***	0.42***	0.03	0.07	0.18***	0.06	0.17***	0.12**	–0.07	0.10*	0.10*	0.02	1.00			
14 Quality	0.12**	0.28***	0.10*	0.09*	0.20***	0.00	0.21***	0.25***	–0.02	–0.06	0.07	0.39***	0.23***	1.00		
15 Log of Funding Goal	–0.25***	–0.04	0.10*	–0.01	0.04	–0.03	0.03	0.06	0.02	–0.03	0.05	0.17***	–0.04	0.18***	1.00	
16 Duration of Funding Period	–0.07	–0.10*	–0.05	0.11*	–0.03	–0.05	–0.08	–0.02	0.01	–0.06	–0.12**	–0.48***	–0.07	–0.18***	0.07	1.00
17 Log of Count of Reward Levels	0.12**	0.22***	–0.03	0.09*	0.12**	–0.04	0.15***	0.07	–0.06	0.00	0.01	0.04	0.18***	0.28***	0.09*	–0.07

Note: S.O.: Sustainability orientation.  
\*\*\* p < 0.01; \*\* p < 0.05; \* p < 0.10.  
n = 315.

Table IIIa. Results of the effect of sustainability orientation (independent variables) on attainment of funding goal and pledge amount (dependent variables)

Predicted variables: Path:	<i>Technology projects</i>					
	<i>Goal Attainment (c)</i>		<i>Goal attainment (b1 and b2)</i>	<i>Log of pledge amount (c)</i>		<i>Log of pledge amount (b1 and b2)</i>
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Predictor Variables</b>						
S.O. – Environmental		1.80***	1.64***		0.99***	0.83***
S.O. – Social		0.71**	0.61**		0.33*	0.24
Creativity			0.55***			0.34***
Count of Endorsements			0.33**			0.25***
<b>Control Variables</b>						
Prototype Available	0.74**	0.72**	0.81***	0.48***	0.48***	0.53***
Technical Goodness	0.34*	0.41**	0.27	0.32***	0.34***	0.24**
Complexity	0.10	0.05	−0.14	0.08	0.07	−0.04
Team	0.83***	0.85***	0.91***	0.69***	0.67***	0.70***
Projects Created	−0.37**	−0.39**	−0.45**	−0.08	−0.09	−0.12
FBF lower 25%	0.27	0.30	0.32	0.02	0.02	0.06
FBF 25%-50%	0.58	0.45	0.34	0.19	0.13	0.07
FBF 50%-75%	0.45	0.47	0.43	0.41	0.41	0.40
FBF top 25%	2.44***	2.23*	2.24***	0.87*	0.72	0.76
Kickstarter.com Age (days)	0.00	0.00	0.00	0.00	0.00	0.00
Log of Projects Backed	0.36***	0.37***	0.37***	0.35***	0.35***	0.34***
Quality	0.42***	0.44***	0.37***	0.47**	0.47***	0.41***
Log of Funding Goal	−1.15***	−1.11***	−1.20***	0.15*	0.17*	0.14
Duration of Funding Period	0.01	0.00	0.00	0.00	0.00	0.00
Log of Count of Reward Levels	1.16***	1.23***	1.26***	0.65***	0.65***	0.65***
Constant	2.34	1.63	2.51	−0.50	−0.73	−0.21
Adj. R-squared	0.28	0.30	0.33	0.40	0.41	0.44
p-value	0.00	0.00	0.00	0.00	0.00	0.00
Observations	392	392	392	392	392	392

Note: One-tailed *t*-tests for hypothesized effects, two-tailed for control variables.

\*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.10$ .

mediator variables reduced the estimated effect size and the statistical significance of the sustainability predictors, indicating a mediation effect.

Equations 2 and 5 in Table IIIa and IIIb describe the effects of a sustainability orientation on funding success without incorporating the mediating variables. The effects of social and environmental sustainability orientations on the funding success of technology projects are estimated to be positive and statistically significant (*support H1a and H1b*). Within the film and video category, only the social sustainability orientation is estimated to positively influence funding success (*support H1a, reject H1b*).

Next Table IV presents estimates of whether the sustainability orientations have an effect on the mediating variables.

We estimate partial support of a sustainability orientation on third party endorsements (*partial support H2*). Hypothesis two is only supported for technology projects and only the effect of an environmental orientation is mediated.

Table IIIb. Results of the effect of sustainability orientation (independent variables) on attainment of funding goal and pledge amount (dependent variables)

Predicted Variables: Path:	Film and video projects					
	Goal attainment (c)		Goal attainment (b1 and b2)	Log of pledge amount (c)		Log of pledge amount (b1 and b2)
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Equation:</i>						
<u>Predictor Variables</u>						
S.O. – Environmental		−0.93	−1.05		−1.09	−1.16
S.O. – Social		0.76*	0.60		0.66**	0.56**
Creativity			0.40*			0.27**
Count of Endorsements			0.52*			0.39**
<u>Control Variables</u>						
Aesthetic Appeal	0.56***	0.65***	0.57***	0.32***	0.40***	0.33***
Complexity	0.93***	0.81***	0.76***	0.50***	0.42***	0.37*
Team	0.64**	0.62**	0.57*	0.50**	0.51***	0.45**
Projects Created	−0.29	−0.28	−0.29	−0.28	−0.28	−0.29
FBF lower 25%	−0.03	−0.09	−0.06	−0.53	−0.55*	−0.52
FBF 25%-50%	0.20	0.07	0.16	−0.10	−0.21	−0.16
FBF 50%-75%	0.26	0.23	0.19	−0.02	−0.04	−0.07
FBF top 25%	0.19	0.19	0.24	−0.26	−0.25	−0.24
Kickstarter.com Age (days)	0.00	0.00	0.00	0.00	0.00	0.00
Log of Projects Backed	0.79***	0.79***	0.78***	0.66***	0.65***	0.63***
Quality	0.03	0.05	0.05	0.19**	0.20**	0.20**
Log of Funding Goal	−1.04***	−1.04***	−1.03***	−0.17	−0.14	−0.14
Duration of Funding Period	−0.01	−0.01	−0.02	−0.01	−0.01	−0.01
Log of Count of Reward Levels	0.82*	0.68	0.66	0.45	0.33	0.32
Constant	2.39	2.80	1.94	4.03***	4.11***	3.66***
Adj. R-squared	0.28	0.29	0.30	0.35	0.38	0.39
p-value	0.00	0.00	0.00	0.00	0.00	0.00
Observations	315	315	315	315	315	315

Note: one-tailed *t*-tests for hypothesized effects, two-tailed for control variables.  
\*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.10$ .

In both samples, our results indicate that a social sustainability orientation has positive effects on project creativity. In the technology sample, an environmental and social sustainability orientation has a positive effect on project creativity (*support H3*). We also tested the significance of this indirect effect using the Kohler et al. (2011) method to test for mediation as previously described. For technology projects, creativity mediated the relationship between environmental orientation and goal attainment and the relationship between environmental orientation and pledge amount. 9.26 per cent of the total effect of an environmental sustainability orientation on goal attainment is mediated by project creativity; 11.90 per cent of the total effect of an environmental sustainability orientation on pledge amount is mediated by project creativity. Third party endorsements partially mediated the effect of an environmental orientation on goal attainment and pledge amount. 14.18 per cent of the total effect of an environmental sustainability orientation on goal attainment is mediated by third party endorsements; 20.15 per cent

Table IV. Results of the effect of sustainability orientation (independent variables) on creativity and third party endorsements (mediator variables)

<i>Predicted Variables: Path:</i>	<i>Technology category</i>				<i>Film and video category</i>			
	<i>Count of endorse- ments (a1)</i>		<i>Creativity (a2)</i>		<i>Count of endorse- ments (a1)</i>		<i>Creativity (a2)</i>	
<i>Equation:</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<u>Predictor Variables</u>								
S.O. – Environmental		0.23*		0.31**		0.07		0.16
S.O. – Social		0.09		0.18*		0.01		0.36***
Creativity	0.02	0.02			0.01	0.01		
Count of Endorsements			0.03	0.02			0.05	0.04
<u>Control Variables</u>								
Prototype Available	0.04	0.04	−0.17	−0.16				
Technical Goodness	−0.01	0.00	0.28***	0.29***				
Aesthetic Appeal					−0.02	−0.02	0.25***	0.27***
Complexity	−0.01	−0.01	0.35***	0.34***	−0.03	−0.03	0.30***	0.25***
Team	−0.05	−0.06	−0.03	−0.04	−0.01	−0.01	0.23***	0.22***
Projects Created	−0.03	−0.03	0.13**	0.13**	0.05	0.06	−0.08	−0.06
FBF lower 25%	0.05	0.05	−0.15	−0.15	−0.05	−0.05	0.00	−0.02
FBF 25%-50%	0.20	0.19	0.08	0.05	−0.02	−0.02	−0.12	−0.16
FBF 50%-75%	0.35	0.35	−0.23	−0.23	−0.07*	−0.07*	0.16	0.19*
FBF top 25%	0.24	0.20	−0.19	−0.26	−0.10	−0.10	0.08	0.09
Kickstarter.com Age (days)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Log of Projects Backed	−0.04*	−0.04*	0.05	0.05	0.02	0.02	0.06	0.06
Quality	0.08	0.09	0.10**	0.10**	0.00	−0.01	0.02	0.01
Log of Funding Goal	0.05*	0.06*	0.05	0.06	−0.01	−0.02	0.01	0.01
Duration of Funding Period	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Log of Count of Reward Levels	0.10***	0.10**	−0.06	−0.07	−0.03	−0.03	0.11	0.09
Constant	−1.38**	−1.43**	−0.33	−0.43	0.12	0.13	1.27***	1.47***
Adj. R-squared	0.06	0.06	0.37	0.38	0.06	0.06	0.35	0.38
p-value	0.07	0.07	0.00	0.00	0.31	0.31	0.00	0.00
Observations	392	392	392	392	315	315	315	315

*Note:* One-tailed *t*-tests for hypothesized effects, two-tailed for control variables.

\*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.10$ .

of the total effect of an environmental sustainability orientation on pledge amount is mediated by third party endorsements.

For film and video projects, creativity mediated the relationship between social orientation and goal attainment (19.21 per cent of the total effect) and between social orientation and pledge amount (14.67 per cent). For film and video projects, we did not estimate a statistically significant mediation effect for creativity in the relationship between an environmental sustainability orientation and funding success. Thus, our results support hypothesis 3 in the case of environmental and social orientation for technology projects and in the case of social orientation for film and video projects (*partial support H3*).



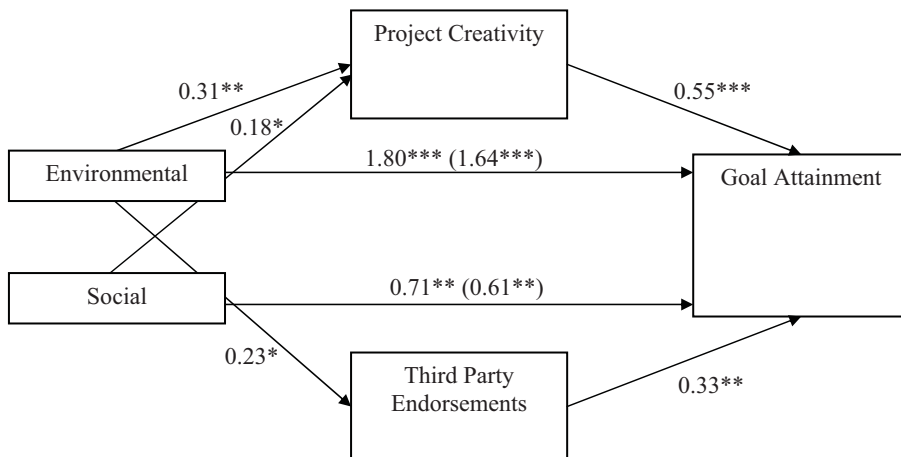


Figure 2. Significant direct and indirect effects of environmental and social orientation on goal attainment of technology projects

*Notes:* Two coefficients are included for the effects of social and environmental sustainability orientations on goal attainment. Coefficients in parentheses represent the effects after the introduction of project creativity and third party endorsements into the regression equations.

Figures 2–5 summarize the findings of the mediating relationships explored in the study.

## DISCUSSION AND CONCLUSION

An entrepreneurs' ability to acquire resources influences the success of both commercial and social ventures. Traditional financial institutions have, however, been more generous with the former type of ventures, rather than the latter. The current paper queries

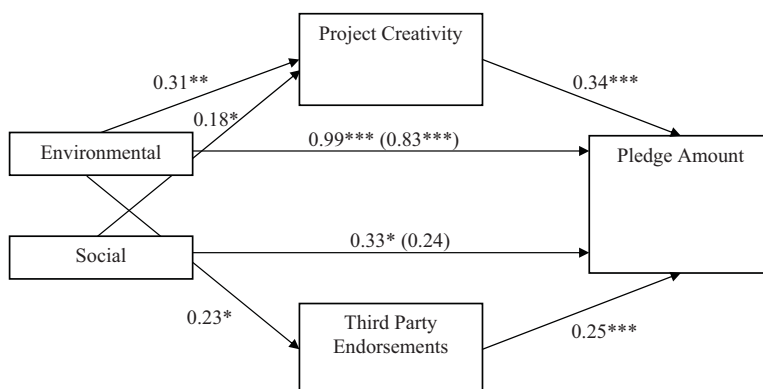


Figure 3. Significant direct and indirect effects of environmental and social orientation on pledge amount of technology projects

*Notes:* Two coefficients are included for the effects of social and environmental sustainability orientations on pledge amount. Coefficients in parentheses represent the effects after the introduction of project creativity and third party endorsements into the regression equations.

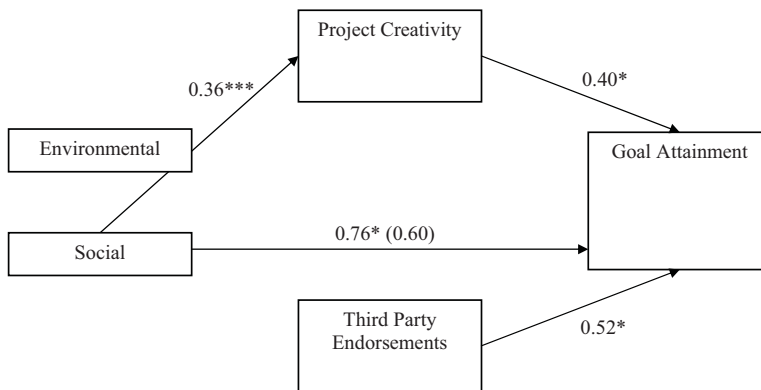


Figure 4. Significant direct and indirect effects of environmental and social orientation on goal attainment of film and video

*Notes:* Two coefficients are included for the effects of social and environmental sustainability orientations on goal attainment. Coefficients in parentheses represent the effects after the introduction of project creativity and third party endorsements into the regression equations.

whether new financial institutions like crowdfunding have emerged to address the increasing societal demand for and support of social entrepreneurship. To address this question, we sought to understand whether and how a sustainability orientation influences an entrepreneur's ability to raise funds in the context of reward-based crowdfunding. Focusing on early-stage ventures that differ in whether they incorporate social and/or environmental sustainability orientations, our theoretical and empirical approaches attempted to unpack the effects of each orientation on crowdfunding success. The results of the empirical analysis supported hypothesis 1a across the two samples (technology projects and film/video projects on the Kickstarter platform) and the two

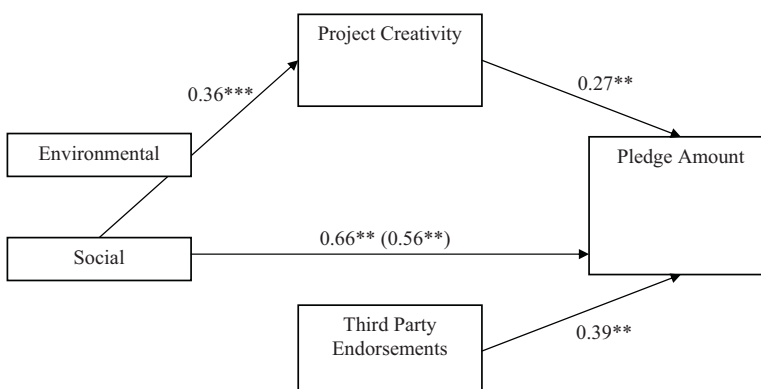


Figure 5. Significant direct and indirect effects of environmental and social orientation on pledge amount of film and video

*Notes:* Two coefficients are included for the effects of social and environmental sustainability orientations on pledge amount. Coefficients in parentheses represent the effects after the introduction of project creativity and third party endorsements into the regression equations.

operationalizations of funding success (goal attainment and total pledges raised). The adoption of a social orientation appears to facilitate crowdfunding success in reward-based platforms like Kickstarter. Our results also indicate support for hypothesis 1b for both operationalizations of the dependent variable, but only in the technology sample of projects, indicating that for these types of nascent ventures, an environmental orientation may also contribute to crowdfunding success. A similar finding was not observed for film/video projects.

In addition, our analyses reported mixed results of our mediating hypotheses. We had anticipated that project legitimacy (represented by third-party endorsements) and creativity would both partially mediate the relationship between sustainability orientation and funding success. Our expectations of a partially mediated model was supported for creativity – meaning that adopting a sustainability orientation may enhance the creativity of the resulting projects that the entrepreneur develops, as suggested by Hahn and co-authors (2014) – and, in turn, sustainability orientation and creativity may contribute directly to funding success. This interpretation is consistent with the results for environmental and social orientation in technology projects and for social orientation in film/video projects. Our results only partially support the mediation effect for legitimacy.

While our theorizing emphasized that we could not *a priori* hypothesize about specific differences between a social orientation and an environmental one, we anticipated differences to emerge and they did. The pattern of results reflects the significance of a sustainability orientation among technology projects: not only does the crowd appear to value (in terms of their financial contributions) technology projects that adopt a sustainability orientation, they also value the creativity that this orientation may produce in the venture.

The distinction between social and environmental orientation proved relevant in the sample of film/video projects. In this case, the results for social orientation followed the anticipated pattern both in their direct and indirect (mediated) effects. When a project adopts a social orientation, it may be more likely to be creative, and funders appear to support both the social orientation and the creativity (in part resulting from this social orientation) of a project. We found little effect associated with an environmental orientation in the film/video projects. Certainly interest in and preferences for different film/videography content are influenced by recent events.

These differences in our results across the two samples highlight the likely context-specific nature of results that reflect upon the very nature of crowdfunding. Not only might the values and beliefs of members of the crowd change over time, who participates in the crowd is also likely to change. We also see continual evolution and innovation among the types of crowdfunding platforms and their operational practices. Traditional capital sources, while influenced by changing legal requirements and other relatively exogenous factors, nonetheless, maintain relatively stable practices, preferences, institutional arrangements, etc. The preferences of crowdfunders and the structure of the crowdfunding industry instead represent moving targets.

The significance of creativity that emerged in this study indicates that a sustainability orientation may matter for reasons not widely discussed or considered: *its impact on creativity within new ventures*. We highlight the effect of a sustainability orientation on creativity because this phenomenon has not been widely discussed by either academics (Grégoire

et al., 2011) or managers. We believe that the framing of entrepreneurial problems with a sustainability lens may encourage outside-of-the-box thinking, resulting in superior performance or at least more creative solutions to these problems. Our findings are consistent with extant literature on the positive relationship between cognitive complexity and creativity, and they reveal the relevance of problem framing and potentially paradoxical thinking for entrepreneurial performance.

While the argument remains attractive that sustainability projects are more legitimate because of moral and ideological reasons, we found only partial evidence to support this within our data (only environmental orientation and only in the technology sub-sample). In part, this may be due to the types of projects we sampled. Third-party endorsements of films or videos may be influenced more by the personnel involved in the projects rather than any moral or ideological message underlying the content. This arguably relates more to the nature of third-party endorsements, rather than the overall concept of legitimacy.

While we believe this study has raised many relevant and potentially provocative issues associated with a sustainability orientation and crowdfunding, we must now draw attention to the limitations of our study.

## Limitations

As already mentioned, the current study selected only two types of projects and only one crowdfunding platform. We begin this study with technology-only projects because of Kickstarter's high requirements for these projects. We expanded our sample to increase the generalizability of our results, and in so doing, confirmed that aspects of our model were context-specific. As noted above, we do not necessarily see this as a significant limitation of the current study but rather as characteristic of the dynamic crowdfunding environment. We cannot speak to, however, whether our results could generalize to other reward-based crowdfunding platforms or to non-reward-based platforms. Early research suggests that reward-based and equity-based crowdfunding may be complementary, serving different needs (Cholakova and Clarysse, 2015). If true, the impact of ideology, values, and beliefs may not differ across reward-, equity-, and debt-based crowdfunding. Arguably, this impact may be less important in non-reward-based platforms where pecuniary gain may drive funders' decisions.

In addition, we acknowledge that our assumption that an entrepreneur's decision to adopt a sustainability orientation preceded other variables in our model, such as the creativity of the project. The opposite causality could occur, where an entrepreneur identifies a creative product or service, which just happens to serve social or environmental needs. Our assumption is grounded in the idea that an entrepreneur's personal goals (or those of her team) influence whether she restricts her sights to ideas that have positive social and/or environmental impact. Nonetheless, technological trajectories, customer feedback, and other forces may lead to an entrepreneur adopting a sustainability orientation during the discovery process. In this case, it is possible that the search for a creative idea may lead to the adoption of a sustainability orientation, rather than the reverse.

## Future Research

The current paper raised the question of *why* a sustainability orientation matters and the results suggested that a sustainability orientation influenced funding success directly as well as through a project's creativity. We hope that our findings may help to fuel a larger discussion. Understanding the mechanisms through which sustainability orientations influence entrepreneurial behaviour and outcomes will illuminate processes that distinguish social and environmental entrepreneurs from commercial ones, rather than simply identifying differences. Different mechanisms may operate in different funding settings, different types of entrepreneurs, and different types of resources. If entrepreneurs are attempting to attract human capital rather than financial capital, for example, mechanisms such as organizational commitment and person-organization fit may drive success for sustainable ventures. Understanding how adopting a sustainability orientation influences entrepreneurs and organizations/firms in general will be significant for future academic and practical work in the areas of social entrepreneurship, sustainability, corporate social responsibility, social movements, social innovation, and beyond. In addition, it can provide a window into how different types of institutions may emerge or adapt to support the work of a growing cadre of social entrepreneurs.

Despite increased interest in crowdfunding from both academic and practical perspectives, we still know little about the dynamics of online resource acquisition. We see potential in other research methodologies that could delve into decisions within the crowd by both funders and entrepreneurs. Experimental and/or field research techniques could shed light on how entrepreneurs choose to frame their projects and on how potential funders react to key words, images, and narratives. Because of the emotional association with social and/or environmental efforts, research approaches that can observe and possibly manipulate these emotions could prove insightful. We also see promise in a direct comparison between the funding practices and outcomes of traditional financial institutions versus new financial institutions like crowdfunding; such a comparison could shed light on how decision processes differ across the two institutional settings, reflecting the new societal role that the emergent institutions play.

Another potentially fruitful avenue for future work lies in studying how socio-cultural context influences the response to sustainability projects by the crowd. Are people more likely to fund projects that address concerns widely held in their culture, that is, concerns that stir little controversy, such as eliminating poverty or reducing infant mortality? Or are adherents of causes associated with counter-cultural views more zealous in their support of related projects? How do shifts in socio-cultural values play out in the expression of minority-group values in crowdfunding arenas?

In general, questions that lie at the intersection of sustainable entrepreneurship, ideology, and capital markets may provide research opportunities for a broad range of scholars. Not only are these questions relevant to scholars of entrepreneurship, social enterprise, and crowdfunding, but they can shed light more broadly on the role of emotion versus information in financial decisions, the influence of ideology on creativity, and the changing nature of business and entrepreneurship under democratized financial markets.

## NOTES

- [1] We intentionally refer to potential crowdfunders as ‘the crowd’ in this paper because they represent a relatively disjointed and unconnected set of individuals associated with any particular crowdfunding platform. It is important to note that they do not necessarily share a common set of beliefs or values.
- [2] While we distinguish between social and environmental orientations in the current paper, one must acknowledge that social and environmental phenomena are interrelated. For example, increasing wealth among the poorest in a community may lead to investments in better sanitation, with environmental effects. Decreasing carbon emissions in heavily polluted communities may enhance the health and family lives of individuals living in poverty. Our focus, however, is how the entrepreneur describes the needs, solutions, and goals of the project, not on unanticipated consequences or results to which the entrepreneur does not attach importance.
- [3] Few projects embraced both social and environmental causes, so such projects were assigned to the cause that represented their primary focus.
- [4] There remains a difference of opinion as to whether legitimacy itself is a resource or whether it is something that is achieved that helps entrepreneurs acquire other resources (Zimmerman and Zeitz, 2002).
- [5] The following films have received backing through Kickstarter and have been nominated for (or won) the Academy Award: ‘Finding Vivian Maier’, ‘The Square’, ‘Inocente’, ‘Kings Point’, ‘Buzkashi Boys’, ‘Incident in New Baghdad’, ‘The Barber of Birmingham’, ‘Sun Come Up’.
- [6] <https://publiclab.org/wiki/balloon-mapping>
- [7] Based on our review of the 326 publically available aerial maps, less than 5 per cent of the maps unambiguously address social issues.

## APPENDIX

### CODING INSTRUCTIONS FOR SUSTAINABILITY ORIENTATION

#### Rate Each Project as Having a Social or Environmental Orientation

*Environmental:* Does the project in some way benefit the environment – nature and the Earth’s life support systems (For example: saves trees, plants, bees, whales, the ecosystem, reduces pollution, makes recycling easier, etc.)?

Score: 1 = Yes, 0 = No.

*Social:* Does the project in some way benefit people (For example: improves education, fights discrimination, donates to the needy)?

Score: 1 = Yes, 0 = No.

### JUDGING INSTRUCTIONS FOR CREATIVITY AND CREATIVITY CONTROLS

#### Judge Each Project on Each of the Following three Dimensions

Before beginning to judge each project, read the first 20 projects in the Excel file. You should have an idea of the quality of projects on the list before you judge any of them. When judging, judge projects relative to one another, and not to some absolute standard. For example, a rating of 5 should go to the best Kickstarter projects in the list, and not the best possible Kickstarter project that you can imagine.



The dimensions are:

*Creativity*: using your own subjective definition of creativity, the degree to which the project is creative relative to other projects.

*Technical goodness*: the degree to which the work is good technically relative to other projects. (*only for technology subsample*)

*Aesthetic appeal*: in general, the degree to which the work is aesthetically pleasing relative to other projects. (*only for film and video subsample*)

*Complexity*: the level of complexity of the project relative to other projects.

Score each dimension on a **scale from 0 to 5**.

0 is always the lowest score for that characteristic

5 is always the highest possible score for that characteristic

The reference points (from 0 to 5) are equally spaced.

*It is vital that you maintain clarity in your subjective definitions of the different dimensions. That is, separate the dimensions (creativity, technical goodness, complexity) from one another as much as possible.*

## REFERENCES

- Agrawal, A. K., Catalini, C. and Goldfarb, A. (2013). *Some Simple Economics of Crowdfunding*. Working Paper, National Bureau of Economic Research. Available at: <http://www.nber.org/papers/w19133>.
- Aldrich, H. E. and Fiol, C. M. (1994). 'Fools rush in? The institutional context of industry creation'. *Academy of Management Review*, **19**, 645–70.
- Amabile, T. (1983). *The Social Psychology of Creativity*. New York: Springer.
- Amabile, T. (1996). *Creativity in Context: Update to the Social Psychology of Creativity*. Boulder, CO: Westview Press.
- Austin, J., Stevenson, H. and Wei-Skillern, J. (2006). 'Social and commercial entrepreneurship: Same, different, or both?'. *Entrepreneurship Theory and Practice*, **30**, 1–22.
- Beaton, E. (2007). 'Generation Y'. *Profit*, **26**, 38.
- Bock, R. D. and Jones, L. V. (1968). *The Measurement and Prediction of Judgment and Choice*. San Francisco, CA: Holden-Day.
- Bornstein, D. (2007). *How to Change the World: Social Entrepreneurs and the Power of New Ideas*. New York: Oxford University Press.
- Cahill, T. F. and Sedrak, M. (2012). 'Leading a multigenerational workforce: Strategies for attracting and retaining millennials'. *Frontiers of Health Services Management*, **29**, 3–15.
- Chen, X. -P., Yao, X. and Kotha, S. (2009). 'Entrepreneur passion and preparedness in business plan presentations: A persuasion analysis of venture capitalists' funding decisions'. *Academy of Management Journal*, **52**, 199–214.
- Cholakova, M. and Clarysse, B. (2015). 'Does the possibility to make equity investments in crowdfunding projects crowd out reward-based investments?'. *Entrepreneurship Theory and Practice*, **39**, 145–72.
- Conti, R. (1992). *A Potential Danger in the Use of Productivity Goals*. Unpublished manuscript, Brandeis University, Waltham, MA.
- Conti, R. and Amabile, T. M. (1995). *Problem Solving Among Computer Science Students: The Effect of Skill, Expectation and Personality on Solution Quality*. Paper presented at Harvard Business School, Boston, MA, 1 April 1995.
- Cooper, A. C. and Bruno, A. V. (1977). 'Success among high-technology firms'. *Business Horizons*, **20**, 16–22.
- Dart, R. (2004). 'The legitimacy of social enterprise'. *Nonprofit Management and Leadership*, **14**, 411–24.

- Davidsson, P. (2006). *Entrepreneurship and the Growth of Firms*. Cheltenham: Edward Elgar Publishing.
- Deephouse, D. L. and Suchman, M. (2008). 'Legitimacy in organizational institutionalism'. In Greenwood, R., Oliver, C., Sahlin, K. and Suddaby, R. (Eds), *The Sage Handbook of Organizational Institutionalism*. London: Sage, 49–77.
- Doh, J. P., Howton, S. D., Howton, S. W. and Siegel, D. S. (2010). 'Does the market respond to an endorsement of social responsibility? The role of institutions, information, and legitimacy'. *Journal of Management*, **36**, 1461–85.
- Dowling, J. and Pfeffer, J. (1975). 'Organizational legitimacy: Social values and organizational behavior'. *Pacific Sociological Review*, **18**, 122–36.
- Eisenhardt, K. M. and Schoonhoven, C. B. (1990). 'Organizational growth: Linking founding team, strategy, environment, and growth among U.S. semiconductor ventures, 1978–1988'. *Administrative Science Quarterly*, **35**, 504–29.
- Eversole, B. A. W., Venneberg, D. L. and Crowder, C. L. (2012). 'Creating a flexible organizational culture to attract and retain talented workers across generations'. *Advances in Developing Human Resources*, **14**, 607–25.
- Finke, R. A., Smith, S. M. and Ward, T. B. (1996). *Creative Cognition Theory, Research, and Applications*. Cambridge, MA: MIT Press.
- Frank, D. J., Hironaka, A., Meyer, J. W., Schofer, E. and Tuma, N. B. (1999). 'The rationalization and organization of nature in world culture'. In Boli, J. and Thomas, G. M. (Eds), *Constructing World Culture*. Stanford, CA: Stanford University Press, 81–99.
- Freeman, J., Carroll, G. R. and Hannan, M. T. (1983). 'The liability of newness: Age dependence in organizational death rates'. *American Sociological Review*, **48**, 692–710.
- Friedman, M. (1970). 'The social responsibility of business is to increase its profits'. *New York Times Magazine*, **13** September.
- Gilad, B. (1984). 'Entrepreneurship: The issue of creativity in the market place'. *Journal of Creative Behavior*, **18**, 151–61.
- Gonin, M., Besharov, M. H. -P. and Smith, W. K. (2013). 'Managing social-business tensions: A review and research agenda for social enterprises'. *Academy of Management Proceedings*, **2013**, 11745.
- Grant, A. M. and Berry, J. W. (2011). 'The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective taking, and creativity'. *Academy of Management Journal*, **54**, 73–96.
- Gras, D., Moss, T. W. and Lumpkin, G. T. (2014). 'The use of secondary data in social 'entrepreneurship research: Assessing the field and identifying future opportunities. In Short, J., Bergh, D. D. and Ketchen, D. J. Jr (Eds), *Social Entrepreneurship and Research Methods, Research Methodology in Strategy and Management*. Bingley: Emerald Group Publishing Limited, 49–75.
- Grégoire, D. A., Corbett, A. C. and McMullen, J. S. (2011). 'The cognitive perspective in entrepreneurship: An agenda for future research'. *Journal of Management Studies*, **48**, 1443–77.
- Hahn, T., Preuss, L., Pinkse, J. and Figge, F. (2014). 'Cognitive frames in corporate sustainability: Managerial sensemaking with paradoxical and business case frames'. *Academy of Management Review*, **39**, 463–87.
- Hennessey, B. A. and Amabile, T. M. (2010). 'Creativity'. *Annual Review of Psychology*, **61**, 569–98.
- Hewlett, S. A., Sherbin, L. and Sumberg, K. (2009). 'How Gen Y & Boomers will reshape your agenda'. *Harvard Business Review*, **87**, 71–76.
- Hibbert, S. A., Hogg, G. and Quinn, T. (2005). 'Social entrepreneurship: Understanding consumer motives for buying The Big Issue'. *Journal of Consumer Behaviour*, **4**, 159–72.
- Hsu, D. H. (2007). 'Experienced entrepreneurial founders, organizational capital, and venture capital funding'. *Research Policy*, **36**, 722–41.
- Karlsen, K. B. and Holm, A. (2011). 'Decomposing primary and secondary effects: A new decomposition method'. *Research in Social Stratification and Mobility*, **29**, 221–37.
- Kohler, U., Karlsen, K. B. and Holm, A. (2011). 'Comparing coefficients of nested nonlinear probability models'. *Stata Journal*, **11**, 420–38.
- Krippendorff, K. (1980). *Content Analysis: An Introduction to Its Methodology*. Thousand Oaks, CA: Sage Publications, Inc.
- Kuckertz, A. and Wagner, M. (2010). 'The influence of sustainability orientation on entrepreneurial intentions – Investigating the role of business experience'. *Journal of Business Venturing*, **25**, 524–39.
- Lefebvre, V. and Lefebvre, M. R. (2012). 'Integrating corporate social responsibility at the start-up level: Constraint or catalyst for opportunity identification?'. *International Business Research*, **5**, 17–27.

- Lounsbury, M. and Glynn, M. (2001). 'Cultural entrepreneurship: Stories, legitimacy, and the acquisition of resources'. *Strategic Management Journal*, **22**, 545–64.
- Lumpkin, G. T., Moss, T. W., Gras, D. M., Kato, S. and Amezcua, A. S. (2013). 'Entrepreneurial processes in social contexts: How are they different, if at all?'. *Small Business Economics*, **40**, 761–83.
- Manning, W. G. and Mullahy, J. (2001). 'Estimating log models: To transform or not to transform?'. *Journal of Health Economics*, **20**, 461–94.
- Margolis, J. D. and Walsh, J. P. (2003). 'Misery loves companies: Rethinking social initiatives by business'. *Administrative Science Quarterly*, **48**, 268–305.
- Maurer, C. C., Bansal, P. and Crossan, M. M. (2011). 'Creating economic value through social values: Introducing a culturally informed resource-based view'. *Organization Science*, **22**, 432–48.
- McCarthy, J. D. and Zald, M. N. (1977). 'Resource mobilization and social movements: A partial theory'. *American Journal of Sociology*, **82**, 1212–41.
- McMullen, J. S. and Warnick, B. J. (2015). 'Should we require every new venture to be a hybrid organization?'. *Journal of Management Studies*, **53**, doi:10.1111/joms.12150.
- Meyer, J. W. (2010). 'World society, institutional theories, and the actor'. *Annual Review of Sociology*, **36**, 1–20.
- Meyer, J. W. and Jepperson, R. L. (2000). 'The "actors" of modern society: The cultural construction of social agency'. *Sociological Theory*, **18**, 100–20.
- Meyer, J. W. and Rowan, B. (1977). 'Institutionalized organizations: Formal structure as myth and ceremony'. *American Journal of Sociology*, **83**, 340–63.
- Mollick, E. (2014). 'The dynamics of crowdfunding: An exploratory study'. *Journal of Business Venturing*, **29**, 1–16.
- Montini, L. (2014). *Crowdfunding's Popularity Surged in 2013*. Inc.com. Available at: <http://www.inc.com/laura-montini/the-rapid-rise-of-crowdfunding.html> (accessed 6 December 2014).
- Ordanini, A., Miceli, L., Pizzetti, M. and Parasuraman, A. (2011). 'Crowd-funding: Transforming customers into investors through innovative service platforms'. *Journal of Service Management*, **22**, 443–70.
- Parris, T. M. and Kates, R. W. (2003). 'Characterizing and measuring sustainable development'. *Annual Review of Environment and Resources*, **28**, 559–86.
- Pfeffer, J. and Salancik, G. R. (1978). *The External Control of Organizations: A Resource Dependence Perspective*. New York: Harper & Row.
- Prescott-Allan, R. (2001). *The Wellbeing of Nations*. Washington, DC: Island Press.
- Schoonhoven, C. B. and Romanelli, E. (2001). *The Entrepreneurship Dynamic: The Origins of Entrepreneurship and the Evolution of Industries*. Stanford, CA: Stanford University Press.
- Shepherd, D. A. and Patzelt, H. (2011). 'The new field of sustainable entrepreneurship: Studying entrepreneurial action linking "what is to be sustained" with "what is to be developed"'. *Entrepreneurship Theory and Practice*, **35**, 137–63.
- Singh, J. V., Tucker, D. J. and House, R. J. (1986). 'Organizational legitimacy and the liability of newness'. *Administrative Science Quarterly*, **31**, 171–93.
- Starr, J. A. and MacMillan, I. C. (1990). 'Resource cooptation via social contracting: Resource acquisition strategies for new ventures'. *Strategic Management Journal*, **11**, 79–92.
- Stinchcombe, A. L. (1965). 'Social structure and organizations'. In March, J. (Ed.), *Handbook of Organizations*. Chicago, IL: Rand McNally, 142–93.
- Strickler, Y., Chen, P. and Adler, C. (2012). 'Kickstarter is not a store'. *Kickstarter*. Available at: <https://www.kickstarter.com/blog/kickstarter-is-not-a-store> (25 November 2015).
- Stryker, R. (1994). 'Rules, resources, and legitimacy processes: Some implications for social conflict, order, and change'. *American Journal of Sociology*, **99**, 847–910.
- Suchman, M. C. (1995). 'Managing legitimacy: Strategic and institutional approaches'. *Academy of Management Review*, **20**, 571–610.
- Taylor, A. and Greve, H. R. (2006). 'Superman or the fantastic four? Knowledge combination and experience in innovative teams'. *Academy of Management Journal*, **49**, 723–40.
- The American Dream Composite Index*. (2012). Cincinnati, OH: Xavier University.
- Trochim, W. M. K. and Donnelly, J. P. (2006). *The Research Methods Knowledge Base*, 3rd edition. Mason, OH: Atomic Dog.
- Überbacher, F. (2014). 'Legitimation of new ventures: A review and research programme'. *Journal of Management Studies*, **51**, 667–98.
- Vissa, B. and Chacar, A. S. (2009). 'Leveraging ties: The contingent value of entrepreneurial teams' external advice networks on Indian software venture performance'. *Strategic Management Journal*, **30**, 1179–91.

- Wilson, F. and Post, J. E. (2013). 'Business models for people, planet (& profits): Exploring the phenomena of social business, a market-based approach to social value creation'. *Small Business Economics*, **40**, 715–37.
- Zahra, S. A. and Wright, M. (2015). 'Understanding the social role of entrepreneurship'. *Journal of Management Studies*, **53**, doi:10.1111/joms.12149.
- Zimmerman, M. A. and Zeitz, G. J. (2002). 'Beyond survival: Achieving new venture growth by building legitimacy'. *Academy of Management Review*, **27**, 414–31.
- Zott, C. and Huy, Q. N. (2007). 'How entrepreneurs use symbolic management to acquire resources'. *Administrative Science Quarterly*, **52**, 70–105.